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NEWS	2	OCT 02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	3	OCT 19	BEILSTEIN updated with new compounds
NEWS	4	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	5	NOV 19	WPIX enhanced with XML display format
NEWS	6	NOV 30	ICSD reloaded with enhancements
NEWS	7	DEC 04	LINPADOCDB now available on STN
NEWS	8	DEC 14	BEILSTEIN pricing structure to change
NEWS	9	DEC 17	USPATOLD added to additional database clusters
NEWS	10	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS	11	DEC 17	DGENE now includes more than 10 million sequences
NEWS	12	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	13	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS	14	DEC 17	CA/CAPLUS enhanced with new custom IPC display formats
NEWS	15	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS	16	JAN 02	STN pricing information for 2008 now available
NEWS	17	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	18	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	19	JAN 28	MARPAT searching enhanced
NEWS	20	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	21	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	22	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	23	FEB 08	STN Express, Version 8.3, now available
NEWS	24	FEB 20	PCI now available as a replacement to DPCI
NEWS	25	FEB 25	IFIREF reloaded with enhancements
NEWS	26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	27	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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FILE 'HOME' ENTERED AT 08:38:26 ON 06 MAR 2008

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 08:38:37 ON 06 MAR 2008

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FILE COVERS 1907 - 6 Mar 2008 VOL 148 ISS 10

FILE LAST UPDATED: 5 Mar 2008 (20080305/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> chitosan and fung?

30832 CHITOSAN

1233 CHITOSANS

30890 CHITOSAN

(CHITOSAN OR CHITOSANS)

240837 FUNG?

L1 1726 CHITOSAN AND FUNG?

=> l1 and prep/rl

4538656 PREP/RL

L2 285 L1 AND PREP/RL

=> l2 and (pressure or autoclave or psi)

1305408 PRESSURE

183384 PRESSURES

1374430 PRESSURE

(PRESSURE OR PRESSURES)

46200 AUTOCLAVE

3693 AUTOCLAVES  
 47993 AUTOCLAVE  
 (AUTOCLAVE OR AUTOCLAVES)  
 66545 PSI  
 47 PSIS  
 66573 PSI  
 (PSI OR PSIS)  
 L3 3 L2 AND (PRESSURE OR AUTOCLAVE OR PSI)

=> d 13 1-3 ibib abs kwic

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:836761 CAPLUS  
 DOCUMENT NUMBER: 139:328325  
 TITLE: Chitosan production from chitin-containing materials  
 INVENTOR(S): Trinkle, James R.; Fan, Weiyu; Hwang, Ki-oh  
 PATENT ASSIGNEE(S): Cargill, Inc., USA  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086281	A2	20031023	WO 2003-US10560	20030402
WO 2003086281	A3	20040219		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2481006	A1	20031023	CA 2003-2481006	20030402
AU 2003221828	A1	20031027	AU 2003-221828	20030402
BR 2003003666	A	20040727	BR 2003-3666	20030402
EP 1497335	A2	20050119	EP 2003-718228	20030402
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005215774	A1	20050929	US 2004-509570	20040929
PRIORITY APPLN. INFO.:			US 2002-369594P	P 20020402
			WO 2003-US10560	W 20030402

AB The invention provides a method of producing chitosan using pressures greater than 0 PSIG. The invention also provides fungal chitosan compns. A dry matter of Aspergillus niger mycelium was mixed with an aqueous solution of NaOH and the mixture was heated to 110° to obtain chitosan.

TI Chitosan production from chitin-containing materials

AB The invention provides a method of producing chitosan using pressures greater than 0 PSIG. The invention also provides fungal chitosan compns. A dry matter of Aspergillus niger mycelium was mixed with an aqueous solution of NaOH and the mixture was heated to 110° to obtain chitosan.

ST chitosan fermn Aspergillus deacetylation

IT Aspergillus niger  
Deacetylation  
Fermentation  
(chitosan production from chitin-containing materials)

IT 9012-76-4P, Chitosan  
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(chitosan production from chitin-containing materials)

IT 1310-73-2, Sodium hydroxide, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(chitosan production from chitin-containing materials)

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:556264 CAPLUS

DOCUMENT NUMBER: 137:366631

TITLE: Octadecanoid signaling component "burst" in rice  
(Oryza sativa L.) seedling leaves upon wounding by cut  
and treatment with fungal elicitor  
chitosan

AUTHOR(S): Rakwal, Randeep; Tamogami, Shigeru; Agrawal, Ganesh  
K.; Iwahashi, Hitoshi

CORPORATE SOURCE: Research Institute of Biological Resources, Molecular  
and Microbial Ecology Research Group, National  
Institute of Advanced Industrial Science and  
Technology (AIST), Tsukuba, Ibaraki, 305-8566, Japan

SOURCE: Biochemical and Biophysical Research Communications  
(2002), 295(5), 1041-1045

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Octadecanoid pathway components, 12-oxo-phytodieonic acid (OPDA) and  
jasmonic acid (JA), are key biol. active regulators of plant self-defense  
response(s). However, to date these compds. have been studied mostly in  
dicots, and used large (1-10 g fresh weight, FW) samples for quantification,  
even when examined in mature rice plants, which is a drawback considering  
their rapid responsiveness to stress. Focusing on rice-a monocot cereal  
crop research model-this work describes an efficient and simultaneous  
quantification of both OPDA and JA using a min. amount of 200 mg FW seedling  
leaf tissue upon wounding (by cut) and treatment with fungal  
elicitor, chitosan (CT) by high-pressure liquid  
chromatog.-turboionspray tandem mass spectrometry. Transient OPDA/JA  
"burst" was consistently and reproducibly detected within 3 min in wounded  
and CT treated leaves. OPDA peaked dramatically around 5 min and returned  
to its basal level within 15 min, whereas JA induction upon wounding and  
CT treatment were in parallel to OPDA production, peaking at 30 and 60 min,  
resp. Present results mark a major advance in our understanding of key  
inducible octadecanoid pathway components in rice, and strongly suggest a  
role for the octadecanoid pathway downstream of perception of at least  
these two fundamentally different extracellular stimuli.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Octadecanoid signaling component "burst" in rice (Oryza sativa L.)  
seedling leaves upon wounding by cut and treatment with fungal  
elicitor chitosan

AB . . . and JA using a min. amount of 200 mg FW seedling leaf tissue upon  
wounding (by cut) and treatment with fungal elicitor,  
chitosan (CT) by high-pressure liquid chromatog.-  
turboionspray tandem mass spectrometry. Transient OPDA/JA "burst" was

consistently and reproducibly detected within 3 min in wounded and CT. .

- IT Oryza sativa  
(octadecanoid signaling component "burst" in rice (Oryza sativa L.) seedling leaves upon wounding by cut and treatment with fungal elicitor chitosan)
- IT Hormones, microbial  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(phytoalexin-eliciting; Octadecanoid signaling component "burst" in rice (Oryza sativa L.) seedling leaves upon wounding by cut and treatment with fungal elicitor chitosan)
- IT Stress, plant  
(wounding; octadecanoid signaling component "burst" in rice (Oryza sativa L.) seedling leaves upon wounding by cut and treatment with fungal elicitor chitosan)
- IT 9012-76-4, Chitosan  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(octadecanoid signaling component "burst" in rice (Oryza sativa L.) seedling leaves upon wounding by cut and treatment with fungal elicitor chitosan)
- IT 6894-38-8P, Jasmonic acid 71606-07-0P  
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(octadecanoid signaling component "burst" in rice (Oryza sativa L.) seedling leaves upon wounding by cut and treatment with fungal elicitor chitosan)

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:696858 CAPLUS

DOCUMENT NUMBER: 127:343343

TITLE: Immobilized alliinase and continuous production of alliin

INVENTOR(S): Mirelman, David; Wilchek, Meir; Miron, Talia;  
Rabinkov, Aharon; Sivaraman, Hephzibah

PATENT ASSIGNEE(S): Yeda Research and Development Co. Ltd., Israel;  
Mirelman, David; Wilchek, Meir; Miron, Talia;  
Rabinkov, Aharon; Sivaraman, Hephzibah

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 9739115	A1	19971023	WO 1997-IL124	19970414
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2251532	A1	19971023	CA 1997-2251532	19970414
AU 9723058	A	19971107	AU 1997-23058	19970414
EP 904361	A1	19990331	EP 1997-915666	19970414
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

JP 2000508535	T	20000711	JP 1997-536917	19970414
IL 126596	A	20030624	IL 1997-126596	19970414
US 6689588	B1	20040210	US 2000-171311	20000912
PRIORITY APPLN. INFO.:			IL 1996-117934	A 19960416
			WO 1997-IL124	W 19970414

AB Immobilized garlic alliinase wherein the alliinase is chemical, phys., or biol. immobilized, is useful in a method for continuous production of allicin. The method comprises adding a solution of alliin as substrate to a column containing said immobilized garlic alliinase and collecting pure allicin in the effluent. The pure allicin is intended for use as food additive or for the preparation of pharmaceutical compns. for the treatment of viral, bacterial, fungal and parasitic infections, high levels of cholesterol and blood lipids, high blood pressure and thrombosis.

AB . . . is intended for use as food additive or for the preparation of pharmaceutical compns. for the treatment of viral, bacterial, fungal and parasitic infections, high levels of cholesterol and blood lipids, high blood pressure and thrombosis.

IT Antibacterial agents  
 Anticholesteremic agents  
 Anticoagulants  
 Antihypertensives  
 Antiviral agents  
 Food additives  
Fungicides  
 Parasiticides  
 (immobilized garlic alliinase and continuous production of allicin)

IT Enzymes, biological studies  
 RL: BPN (Biosynthetic preparation); CAT (Catalyst use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (immobilized; immobilized garlic alliinase and continuous production of allicin)

IT 539-86-6P, Allicin  
 RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)  
 (immobilized garlic alliinase and continuous production of allicin)

IT 9031-77-0P, Alliinase  
 RL: BPN (Biosynthetic preparation); CAT (Catalyst use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (immobilized garlic alliinase and continuous production of allicin)

IT 1398-61-4, Chitin 9000-69-5, Pectin 9002-18-0, Agar 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9003-19-4, Vinyl ether polymers 9004-34-6, Cellulose, uses 9004-54-0, Dextran, uses 9005-25-8, Starch, uses 9005-32-7, Alginic acid 9006-26-2, Ethylene-maleic anhydride copolymer 9012-36-6, Agarose 9012-76-4, Chitosan 9046-40-6, Pectic acid 25014-41-9, Polyacrylonitrile 25067-05-4, Polyglycidyl methacrylate 27251-32-7, Polyallyl alcohol 30347-69-4, Trisacryl 34354-76-2  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (immobilized garlic alliinase and continuous production of allicin)

=> d his

(FILE 'HOME' ENTERED AT 08:38:26 ON 06 MAR 2008)

FILE 'CAPLUS' ENTERED AT 08:38:37 ON 06 MAR 2008

L1 1726 CHITOSAN AND FUNG?

L2 285 L1 AND PREP/RL  
L3 3 L2 AND (PRESSURE OR AUTOCLAVE OR PSI)

=> l2 and (caustic or base or hydroxide)

24982 CAUSTIC  
570 CAUSTICS  
25355 CAUSTIC  
(CAUSTIC OR CAUSTICS)  
745837 BASE  
164639 BASES  
845068 BASE  
(BASE OR BASES)  
318751 HYDROXIDE  
49972 HYDROXIDES  
342660 HYDROXIDE  
(HYDROXIDE OR HYDROXIDES)

L4 32 L2 AND (CAUSTIC OR BASE OR HYDROXIDE)

=> d l4 1-32 ibib abs kwic

L4 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:160536 CAPLUS  
TITLE: Non-CpG oligonucleotides stimulating the innate immune response for use as adjuvants  
INVENTOR(S): Hoerr, Ingmar; Probst, Jochen; Ketterer, Thomas; Scheeel, Birgit  
PATENT ASSIGNEE(S): Curevac GmbH, Germany  
SOURCE: PCT Int. Appl., 112pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008014979	A2	20080207	WO 2007-EP6772	20070731
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
DE 102006035618	A1	20080207	DE 2006-102006035618	20060731
PRIORITY APPLN. INFO.:				
			DE 2006-102006035618A	20060731
			US 2007-942740P	P 20070608

AB Oligonucleotides terminated with either C at the 5'- and 3'-ends or with G at the 5'- and 3'-ends that can be used to stimulate the innate immune response are described for use as immunostimulants and adjuvants in vaccines. The oligonucleotides may be DNA or RNA, and if they are RNA, they may be terminated with uracil. These oligonucleotides may also be used as conjugates with lipids for delivery. The nucleic acid of the invention acts as an immune-stimulating agent inducing the innate immune response. The present invention relates likewise to the use of a nucleic

acid of the invention or a pharmaceutical composition according to the invention for the treatment of infectious diseases, autoimmune diseases, allergies or cancer diseases. The use of oligoribonucleotides and conjugates of oligoribonucleotides with lipids is shown to induce immunostimulation in PBMCs. Use of these oligonucleotides as immunostimulants in cancer immunotherapy is demonstrated in mice.

IT Lipids

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(conjugates, with oligonucleotides, as adjuvants; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT Mycosis

(fungoides, vaccines against; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT Skin, neoplasm

(mycosis fungoides, vaccines against; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT 7305-59-1P 89496-73-1P 123706-69-4P 142386-74-1P 142386-77-4P  
142386-78-5P 142386-79-6P 142386-80-9P 850544-45-5P 1004316-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reactions of; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT 260430-24-8P 946568-34-9P 1004316-09-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and use of; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT 71-44-3, spermine 111-01-3 124-20-9 7784-30-7, Aluminum phosphate  
9012-76-4, Chitosan 21645-51-2, Aluminum hydroxide  
(Al(OH)<sub>3</sub>) 53678-77-6 263746-33-4, Adjumer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vaccines containing, as immunostimulant; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)

IT 53-43-0 83-44-3D, Deoxycholic acid, complex with alum 91-22-5D,  
Quinoline, imidazoquinoline derivs. 111-02-4 112-18-5 3458-28-4,  
D-Mannose 7421-40-1, BIORAL 9001-67-6, Neuraminidase 9002-88-4D,  
Polyethylene, carbamate-functionalized 9005-65-6 9005-80-5, Inulin  
9011-14-7 9028-79-9 10103-46-5, Calcium phosphate 17406-45-0  
18194-24-6 24936-38-7 26100-51-6 26124-68-5 26266-58-0  
26780-50-7, PLG 32222-06-3 34346-01-5 35607-20-6 38640-92-5  
60355-78-4 61093-23-0 61361-72-6 66112-59-2 66578-77-6, Aluminum  
hydroxide phosphate 66594-14-7, Quil-A 70280-03-4 71208-06-5  
77229-76-6 78113-36-7 83461-56-7 83652-28-2, CGRP 93000-06-7  
99011-02-6 121288-39-9 133863-30-6, D-Murapalmitine 141256-04-4  
143005-30-5 144875-48-9 145380-33-2, TiterMax 159940-37-1, Pleuran  
160903-17-3, Montanide ISA 720 172889-84-8 190396-06-6, Montanide ISA  
51 208937-20-6, Provac (adjuvant) 252725-59-0, Iscoprep 703  
294664-93-0 303734-90-9, Detox (adjuvant) 370108-99-9 431048-16-7,  
Iscomatrix 467423-50-3, TERamide 541547-35-7 544482-83-9, IMOXine  
691397-13-4 858932-43-1, Stealth (liposome) 911642-39-2, IC 31  
937402-51-2 944242-64-2 1004316-11-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vaccines containing; non-CpG oligonucleotides stimulating innate immune response for use as adjuvants)



DOCUMENT NUMBER: 148:77254  
 TITLE: Preparation of Aspergillus niger cell wall derivatives and their uses  
 INVENTOR(S): Versali, Marie-France; Gautier, Sandrine; Bruyere, Jean-Michel; Clerisse, Fabienne; Bornet, Aurelie; Teissedre, Pierre-Louis; Rouanet, Jean-Max  
 PATENT ASSIGNEE(S): Belg.  
 SOURCE: U.S. Pat. Appl. Publ., 65pp., Cont.-in-part of U.S. Ser. No. 504,046.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007299034	A1	20071227	US 2007-785769	20070420
BE 1014638	A6	20040203	BE 2002-93	20020212
US 2005130273	A1	20050616	US 2005-504046	20050128
FR 2887750	A1	20070105	FR 2005-7066	20050704
FR 2900054	A1	20071026	FR 2006-51415	20060421
WO 2007003863	A2	20070111	WO 2006-FR50674	20060704
WO 2007003863	A3	20070322		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:	BE 2002-93	A	20020212
	US 2005-504046	A2	20050128
	FR 2005-7066	A	20050704
	FR 2006-51415	A	20060421
	WO 2006-FR50674	A2	20060704
	WO 2003-EP1375	W	20030212

AB In a first aspect, the present invention relates to a method for isolating cell wall derivs. from fungal or yeast biomass. According to this method, chitin polymers or chitin-glucan copolymers can be obtained. In another aspect, the invention relates to a method for preparing chitosan from chitin. The invention further relates to chitin polymers, chitin-glucan polymers and chitosan polymers obtainable by the methods according to the invention. Moreover, the invention relates to the use of chitin polymers, chitin-glucan copolymers or chitosan polymers obtainable by the method according to the present invention in medical, pharmaceutical, agricultural, nutraceutical, food, textile, cosmetic, industrial and/or environmental applications, and in particular of chitin-glucan copolymers used as a technol. additive for treating a food-grade liquid or in orally administered compns.

AB In a first aspect, the present invention relates to a method for isolating cell wall derivs. from fungal or yeast biomass. According to this method, chitin polymers or chitin-glucan copolymers can be obtained. In another aspect, the invention relates to a method for preparing chitosan from chitin. The invention further relates to chitin

polymers, chitin-glucan polymers and chitosan polymers obtainable by the methods according to the invention. Moreover, the invention relates to the use of chitin polymers, chitin-glucan copolymers or chitosan polymers obtainable by the method according to the present invention in medical, pharmaceutical, agricultural, nutraceutical, food, textile, cosmetic, industrial and/or. . .

- IT Hydrolysis  
(base; preparation of *Aspergillus niger* cell wall derivs. and their uses)
- IT Alcoholic beverages
- Anticholesteremic agents
- Antidiabetic agents
- Antiobesity agents
- Ascomycota
- Aspergillus niger*
- Basidiomycota
- Beer
- Cell wall
- Clarification
- Colloids
- Dietary supplements
- Extraction
- Feed additives
- Fruit and vegetable juices
- Fungi
- Fungi imperfecti
- Glues
- Hamster
- Herbicides
- Immunostimulants
- Mycelium
- Rattus*
- Turbidity
- Wine
- Zygomycetes
- (preparation of *Aspergillus niger* cell wall derivs. and their uses)
- IT 287935-68-6P  
RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
(preparation of *Aspergillus niger* cell wall derivs. and their uses)
- IT 1398-61-4P, Chitin 9012-72-0P, Glucan  
RL: BMF (Bioindustrial manufacture); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(preparation of *Aspergillus niger* cell wall derivs. and their uses)
- IT 9012-76-4P, Chitosan  
RL: FFD (Food or feed use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of *Aspergillus niger* cell wall derivs. and their uses)
- IT 70694-72-3P, Chitosan chloride  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation of *Aspergillus niger* cell wall derivs. and their uses)

L4 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1396695 CAPLUS

DOCUMENT NUMBER: 148:31925

TITLE: Adjuvant in the form of a lipid-modified nucleic acid

INVENTOR(S): Hoerr, Ingmar; Ketterer, Thomas; Pascolo, Steve  
PATENT ASSIGNEE(S): Curevac GmbH, Germany  
SOURCE: U.S. Pat. Appl. Publ., 48pp., Cont.-in-part of Appl.  
No. PCT/EP2006/008321.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007280929	A1	20071206	US 2007-748181	20070514
DE 102006007433	A1	20070823	DE 2006-102006007433	20060217
WO 2007095976	A2	20070830	WO 2006-EP8321	20060824
WO 2007095976	A3	20071101		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,  
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,  
MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,  
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: DE 2006-102006007433A 20060217  
WO 2006-EP8321 A2 20060824

AB The authors disclose immunostimulatory adjuvants in the form of  
lipid-modified nucleic acids, optionally in combination with further  
adjuvants. In one example, the adjuvant comprises a tocopherol-modified  
RNA oligonucleotide. The authors disclose the use of the adjuvants and of  
vaccines for the treatment of infectious diseases or cancer.

IT Mycosis  
(fungoides; lipid-modified oligonucleotide immunostimulants  
for use in vaccines)

IT Skin, neoplasm  
(mycosis fungoides; lipid-modified oligonucleotide  
immunostimulants for use in vaccines)

IT 71-44-3, Spermine 99-20-7D, Trehalose, dimycolate esters 124-20-9,  
Spermidine 9012-76-4, Chitosan 21645-51-2, Aluminum  
hydroxide, biological studies 53678-77-6, Muramyl dipeptide  
87420-41-5 95328-31-7, Nucleoline 691397-13-4, Pluronic  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(for use in vaccines employing lipid-modified oligonucleotide  
immunostimulants)

IT 142386-74-1P 142386-78-5P 260430-24-8P 850544-45-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
(preparation and coupling to oligonucleotides)

IT 160813-76-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and coupling to oligonucleotides)

IT 7305-59-1P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);  
PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with tocopherol)

IT 142386-80-9P 946568-34-9P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);  
PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and succinylation of)

IT 151835-83-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
 (preparation and succinylation of)

IT 6145-69-3P 142386-79-6P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);  
PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and tritylation of)

IT 123706-69-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
 (preparation of)

L4 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1354468 CAPLUS  
 DOCUMENT NUMBER: 148:162777  
 TITLE: Extraction and Precipitation of Chitosan  
 from Cell Wall of Zygomycetes Fungi by  
 Dilute Sulfuric Acid  
 AUTHOR(S): Zamani, Akram; Edebo, Lars; Sjoestroem, Bjoern;  
 Taherzadeh, Mohammad J.  
 CORPORATE SOURCE: School of Engineering, University of Boras, Boras,  
 SE-50190, Swed.  
 SOURCE: Biomacromolecules (2007), 8(12), 3786-3790  
 CODEN: BOMAF6; ISSN: 1525-7797  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A new method was developed in this work for extraction of chitosan  
 from the zygomycetes cell wall. It is based on the temperature-dependent  
 solubility  
 of chitosan in dilute sulfuric acid. Chitin is soluble in neither  
 cold nor hot dilute sulfuric acid. Similarly chitosan is not soluble  
 at room temperature but is dissolved in 1% H<sub>2</sub>SO<sub>4</sub> at 121° within 20 min.  
 The new method was developed to measure the chitosan content of  
 the biomass and cell wall. The procedures were investigated by measuring  
 phosphate, protein, ash, glucuronic acid, and degree of acetylation. The  
 cell wall derivs. of fungus Rhizomucor pusillus were then examined  
 by this new method. The results indicated 8% of the biomass as  
chitosan. After treatment with NaOH, the alkali-insol. material  
 (AIM) contained 45.3% chitosan. Treatment of AIM with acetic  
 acid resulted in 16.5% acetic-acid-soluble material (AcSM) and 79.0% alkali-  
 and acid-insol. material (AAIM). AcSM is usually cited as pure  
chitosan, but the new method shows major impurities by, for  
 example, phosphate. Furthermore, AAIM is usually considered to be the  
chitosan-free fraction, whereas the new method shows more than 76%  
 of the chitosan present in AIM is found in AAIM. It might  
 indicate the inability of acetic acid to sep. chitosan from the  
 cell wall.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Extraction and Precipitation of Chitosan from Cell Wall of  
 Zygomycetes Fungi by Dilute Sulfuric Acid

AB A new method was developed in this work for extraction of chitosan  
 from the zygomycetes cell wall. It is based on the temperature-dependent  
 solubility  
 of chitosan in dilute sulfuric acid. Chitin is soluble in neither

cold nor hot dilute sulfuric acid. Similarly chitosan is not soluble at room temperature but is dissolved in 1% H<sub>2</sub>SO<sub>4</sub> at 121° within 20 min. The new method was developed to measure the chitosan content of the biomass and cell wall. The procedures were investigated by measuring phosphate, protein, ash, glucuronic acid, and degree of acetylation. The cell wall derivs. of fungus Rhizomucor pusillus were then examined by this new method. The results indicated 8% of the biomass as chitosan. After treatment with NaOH, the alkali-insol. material (AIM) contained 45.3% chitosan. Treatment of AIM with acetic acid resulted in 16.5% acetic-acid-soluble material (AcSM) and 79.0% alkali- and acid-insol. material (AAIM). AcSM is usually cited as pure chitosan, but the new method shows major impurities by, for example, phosphate. Furthermore, AAIM is usually considered to be the chitosan-free fraction, whereas the new method shows more than 76% of the chitosan present in AIM is found in AAIM. It might indicate the inability of acetic acid to sep. chitosan from the cell wall.

ST Zygomycetes cell wall chitosan extn pptn dil sulfuric acid;  
fungus cell wall chitosan extn pptn dil sulfuric acid

IT Temperature

(-dependent solubility; extraction and precipitation of chitosan from cell wall

of Zygomycetes fungi by dilute sulfuric acid)

IT Biomass

Cell wall

Precipitation (chemical)

Rhizomucor pusillus

Solvent extraction

Zygomycetes

(extraction and precipitation of chitosan from cell wall of Zygomycetes fungi by dilute sulfuric acid)

IT Solubility

(temperature-dependent; extraction and precipitation of chitosan from cell wall

of Zygomycetes fungi by dilute sulfuric acid)

IT 9012-76-4P, Chitosan

RL: BSU (Biological study, unclassified); PUR (Purification or recovery);

BIOL (Biological study); PREP (Preparation)

(extraction and precipitation of chitosan from cell wall of Zygomycetes fungi by dilute sulfuric acid)

IT 64-19-7, Acetic acid, biological studies 1310-73-2, Sodium

hydroxide, biological studies 7664-93-9, Sulfuric acid, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(extraction and precipitation of chitosan from cell wall of Zygomycetes fungi by dilute sulfuric acid)

IT 14265-44-2, Phosphate, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(impurity; extraction and precipitation of chitosan from cell wall of Zygomycetes fungi by dilute sulfuric acid)

L4 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1022305 CAPLUS

DOCUMENT NUMBER: 147:321386

TITLE: Isolation of killer protein zymocin of Kluyveromyces lactis with chitin carrier

INVENTOR(S): Kitamoto, Hiroko

PATENT ASSIGNEE(S): National Institute of Agrobiological Resources (NIAR), Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007228937	A	20070913	JP 2006-57575	20060303
PRIORITY APPLN. INFO.:			JP 2006-57575	20060303

AB The killer protein zymocin in fermentation broth of K. lactis is adsorbed with chitosan carrier, eluded with acetic acid, and neutralized with alkali solution The method gives high-purity and high-yield active zymocin.

AB The killer protein zymocin in fermentation broth of K. lactis is adsorbed with chitosan carrier, eluded with acetic acid, and neutralized with alkali solution The method gives high-purity and high-yield active zymocin.

IT Adsorbents  
 Carriers  
Fungicides  
 Kluyveromyces lactis  
 Purification  
 (Isolation of killer protein zymosin of Kluyveromyces lactis with chitin carrier)

IT Alkali metal hydroxides  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (Isolation of killer protein zymosin of Kluyveromyces lactis with chitin carrier)

IT 502625-45-8P, Zymocin (toxin)  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (Isolation of killer protein zymosin of Kluyveromyces lactis with chitin carrier)

L4 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:940823 CAPLUS  
 DOCUMENT NUMBER: 147:321270  
 TITLE: Adjuvants in the form of lipid-modified nucleic acids  
 INVENTOR(S): Hoerr, Ingmar; Ketterer, Thomas; Pascolo, Steve  
 PATENT ASSIGNEE(S): Curevac G.m.b.H., Germany  
 SOURCE: Ger. Offen., 38pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102006007433	A1	20070823	DE 2006-102006007433	20060217
WO 2007095976	A2	20070830	WO 2006-EP8321	20060824
WO 2007095976	A3	20071101		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,

IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 2007280929 A1 20071206 US 2007-748181 20070514  
PRIORITY APPLN. INFO.: DE 2006-102006007433A 20060217  
WO 2006-EP8321 A2 20060824

AB The present invention concerns an immunostimulating adjuvant in the form of a lipid-modified nucleic acid, optionally in combination with addnl. adjuvants. Furthermore, the invention concerns a pharmaceutical composition and a vaccine each containing the inventive immunostimulating adjuvant, at least one active ingredient and optionally a pharmaceutical suitable carrier and/or further excipients, additives and/or an addnl. adjuvant. Also the present invention concerns the use of the inventive pharmaceutical composition as well as the inventive vaccine for treatment of infectious diseases or cancer. Likewise the present invention covers the use of the inventive immunostimulating adjuvant for production of a pharmaceutical composition for treatment of cancer or infectious diseases.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Mycosis  
(fungoides; treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT DNA  
Nucleic acids  
Oligodeoxyribonucleotides  
Oligonucleotides  
RNA  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);  
USES (Uses)  
(lipid modified; treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT Skin, neoplasm  
(mycosis fungoides; treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT 71-44-3, Spermine 99-20-7D, Trehalose, mycolate esters 124-20-9, Spermidine 9012-76-4, Chitosan 21645-51-2, Aluminum hydroxide, biological studies 53678-77-6, Muramyl dipeptide 87420-41-5, Pam3Cys  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(adjuvant; treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT 947354-69-0DP, lipid modified  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);  
USES (Uses)  
(treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT 6145-69-3P 7305-59-1P 89496-73-1P 142386-77-4P 142386-79-6P 142386-80-9P 151835-83-5P 946568-34-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT 123706-69-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(treatment of cancer or infection using adjuvants in form of lipid-modified nucleic acids)

IT 79094-66-9DP, lipid modified 142386-74-1DP, nucleic acid conjugates

142386-78-5DP, nucleic acid conjugates 160813-76-3DP, nucleic acid  
conjugates 217312-57-7DP, lipid modified 217312-58-8DP, lipid modified  
260430-24-8DP, nucleic acid conjugates 264875-63-0DP, lipid modified  
264875-64-1DP, lipid modified 264875-65-2DP, lipid modified  
264875-66-3DP, lipid modified 264875-67-4DP, lipid modified  
264875-68-5DP, lipid modified 264875-69-6DP, lipid modified  
264875-70-9DP, lipid modified 264875-71-0DP, lipid modified  
264875-72-1DP, lipid modified 264875-73-2DP, lipid modified  
264875-74-3DP, lipid modified 264875-75-4DP, lipid modified  
264875-76-5DP, lipid modified 264875-77-6DP, lipid modified  
264875-78-7DP, lipid modified 264875-79-8DP, lipid modified  
264875-80-1DP, lipid modified 264875-81-2DP, lipid modified  
264875-82-3DP, lipid modified 264875-83-4DP, lipid modified  
264875-84-5DP, lipid modified 264875-85-6DP, lipid modified  
264875-86-7DP, lipid modified 264875-87-8DP, lipid modified  
264875-88-9DP, lipid modified 264875-89-0DP, lipid modified  
264875-90-3DP, lipid modified 850544-45-5DP, nucleic acid conjugates  
947315-04-0DP, lipid modified 947352-01-4DP, lipid modified  
947354-64-5DP, lipid modified 947354-65-6DP, lipid modified  
947354-66-7DP, lipid modified 947354-67-8DP, lipid modified  
947354-68-9DP, lipid modified 947354-70-3DP, lipid modified  
947354-71-4DP, lipid modified 947354-72-5DP, lipid modified  
947354-73-6DP, lipid modified 947354-74-7DP, lipid modified  
947354-75-8DP, lipid modified 947354-76-9DP, lipid modified  
947354-77-0DP, lipid modified 947354-78-1DP, lipid modified  
947354-79-2DP, lipid modified 947354-80-5DP, lipid modified  
947354-81-6DP, lipid modified 947354-82-7DP, lipid modified  
947354-83-8DP, lipid modified 947354-84-9DP, lipid modified  
947354-85-0DP, lipid modified 947354-86-1DP, lipid modified  
947354-87-2DP, lipid modified 947354-88-3DP, lipid modified  
947354-89-4DP, lipid modified 947354-90-7DP, lipid modified  
947354-91-8DP, lipid modified 947354-92-9DP, lipid modified  
947421-45-6DP, lipid modified 947421-46-7DP, lipid modified

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(treatment of cancer or infection using adjuvants in form of  
lipid-modified nucleic acids)

L4 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:582806 CAPLUS

DOCUMENT NUMBER: 147:184602

TITLE: Antifungal properties of Schiff bases of  
chitosan, N-substituted chitosan and  
quaternized chitosan

AUTHOR(S): Guo, Zhanyong; Xing, Rong; Liu, Song; Zhong, Zhimei;  
Ji, Xia; Wang, Lin; Li, Pengcheng

CORPORATE SOURCE: Institute of Oceanology, Chinese Academy of Sciences,  
Qingdao, 266071, Peop. Rep. China

SOURCE: Carbohydrate Research (2007), 342(10), 1329-1332  
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Schiff bases of chitosan, N-substituted  
chitosan, and quaternized chitosan were synthesized and  
their antifungal properties were analyzed against Botrytis cinerea Pers.  
(B. cinerea pers.) and Colletotrichum lagenarium (Pass) Ell.et halst (C.  
lagenarium (Pass) Ell.et halst) based on the method of D. Jasso de  
Rodriguez and co-workers. The results showed that quaternized  
chitosan had better inhibitory properties than chitosan,



Schiff bases of chitosan, and N-substituted  
chitosan.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

- TI Antifungal properties of Schiff bases of chitosan,  
N-substituted chitosan and quaternized chitosan
- AB Schiff bases of chitosan, N-substituted  
chitosan, and quaternized chitosan were synthesized and  
their antifungal properties were analyzed against Botrytis cinerea Pers.  
(B. cinerea pers.) and Colletotrichum lagenarium (Pass) Ell.et. . .  
lagenarium (Pass) Ell.et halst) based on the method of D. Jasso de  
Rodriguez and co-workers. The results showed that quaternized  
chitosan had better inhibitory properties than chitosan,  
Schiff bases of chitosan, and N-substituted  
chitosan.
- ST antifungal chitosan deriv prepn
- IT Fungicides  
(agrochem.; synthesis and antifungal properties of Schiff bases  
of chitosan, N-substituted chitosan and quaternized  
chitosan)
- IT Schiff bases  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(of chitosan; synthesis and antifungal properties of Schiff  
bases of chitosan, N-substituted chitosan  
and quaternized chitosan)
- IT Botrytis cinerea  
Glomerella cingulata orbiculare  
(synthesis and antifungal properties of Schiff bases of  
chitosan, N-substituted chitosan and quaternized  
chitosan)
- IT 71211-96-6P 71212-04-9P 75433-05-5P 160371-94-8P 845896-02-8P  
890928-78-6P  
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN  
(Synthetic preparation); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
(synthesis and antifungal properties of Schiff bases of  
chitosan, N-substituted chitosan and quaternized  
chitosan)

L4 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:318572 CAPLUS

DOCUMENT NUMBER: 144:406347

TITLE: Method for preparing new low-toxicity  
fungicide for crops

INVENTOR(S): Li, Pengcheng; Liu, Song; Xing, Rong; Yu, Huahua;  
Guo, Zhanyong; Wang, Pibo; Li, Cuiping

PATENT ASSIGNEE(S): Institute of Oceanology, Chinese Academy of Sciences,  
Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 17 pp.  
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1751576	A	20060329	CN 2004-10050480	20040922
PRIORITY APPLN. INFO.:			CN 2004-10050480	20040922

AB The method comprises degrading high mol. weight chitosan in 15-20

times 0.5-5% homogeneous solvent(hydrochloric acid or acetic acid) in the presence of hydrogen peroxide(0.5-3 times of chitosan) under microwave radiation of 340-850 W for 2-10 min, cooling, adding metal compound(Cu or Zn) under stirring, allowing to react at room temperature for 2-12 h, precipitating with acetone and/or ethanol, washing deposition with 70-80% ethanol and then anhydrous ethanol, and drying at 50-80° to obtain oligochitosan-metal coordinated complex with general formula I. The chitosan has mol. weight of (50-100)\*10<sup>4</sup> and deacylation ratio of 65-100%. The fungicide has high efficiency and low toxicity.

TI Method for preparing new low-toxicity fungicide for crops

AB The method comprises degrading high mol. weight chitosan in 15-20 times 0.5-5% homogeneous solvent(hydrochloric acid or acetic acid) in the presence of hydrogen peroxide(0.5-3 times of chitosan) under microwave radiation of 340-850 W for 2-10 min, cooling, adding metal compound(Cu or Zn) under stirring, allowing to react. . . 70-80% ethanol and then anhydrous ethanol, and drying at 50-80° to obtain oligochitosan-metal coordinated complex with general formula I. The chitosan has mol. weight of (50-100)\*10<sup>4</sup> and deacylation ratio of 65-100%. The fungicide has high efficiency and low toxicity.

ST fungicide crop chitooligosaccharide metal coordinated complex

IT Fungicides  
(agrochem.; preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

IT Oligosaccharides, biological studies  
RL: AGR (Agricultural use); PNU (Preparation, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(chitooligosaccharides, metal complexex; preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

IT Alternaria solani  
Crop (plant)  
Fusarium oxysporum  
Physalospora piricola  
Valsa mali  
(preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

IT Coordination compounds  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(with chitooligosaccharide; preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

IT 64-17-5, Ethanol, uses 67-64-1, Acetone, uses 1310-73-2, Sodium hydroxide, uses 10361-37-2, Barium chloride, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

IT 7722-84-1, Hydrogen peroxide, reactions 7733-02-0, Zinc sulfate 7758-98-7, Copper sulfate, reactions 9012-76-4, Chitosan  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of low-toxicity chitooligosacchride-metal complex fungicide for crops)

L4 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:132900 CAPLUS

DOCUMENT NUMBER: 144:273113

TITLE: Application of fungi chitosan for clarification of apple juice

AUTHOR(S): Rungsardthong, Vilai; Wongvuttanakul, Nijarin; Kongpien, Nilada; Chotiwaranon, Pachara

CORPORATE SOURCE: Department of Agro-Industrial Technology, Faculty of

SOURCE: Applied Science, King Mongkut's Institute of  
 Technology North Bangkok, Bangkok, 10800, Thailand  
 Process Biochemistry (Amsterdam, Netherlands) (2006),  
 41(3), 589-593  
 CODEN: PBCHE5; ISSN: 1359-5113  
 PUBLISHER: Elsevier B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Absidia glauca var. paradoxa IFO 4007 was cultured in liquid medium at 24 °C with agitation speed 100 and 200 rpm. The harvested mycelia were treated with hot 2% sodium hydroxide to isolate the alkali-insol. materials. The extraction of chitosan from the alkali-insol. materials was carried out with 2% acetic acid at room temperature. The maximum chitosan extracted was 0.6 and 1.28 g/l at 100 and 200 rpm, resp. The degree of deacetylation of the extracted chitosan was 86%. The viscosity of 0.1% chitosan in 0.5% acetic acid was 4.0 cP. The use of fungus chitosan as fining agents for apple juice was compared to com. chitosan prepared from shrimp shells. The reaction temps. were investigated at 30, 35, and 40 °C with chitosan concentration at 0.1, 0.5, 0.7, and 1.0 g/l. Sample with chitosan treatment at 0.7 g/l and 40 °C reached maximum clarity. The clarity and color changes of the apple juice correlated closely for both fungus and shrimp chitosan treatment. The fungus chitosan proved highly effective in reducing the apple juice turbidity and gave lighter juices than the sample treated with shrimp chitosan.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Application of fungus chitosan for clarification of apple juice

AB . . . medium at 24 °C with agitation speed 100 and 200 rpm. The harvested mycelia were treated with hot 2% sodium hydroxide to isolate the alkali-insol. materials. The extraction of chitosan from the alkali-insol. materials was carried out with 2% acetic acid at room temperature. The maximum chitosan extracted was 0.6 and 1.28 g/l at 100 and 200 rpm, resp. The degree of deacetylation of the extracted chitosan was 86%. The viscosity of 0.1% chitosan in 0.5% acetic acid was 4.0 cP. The use of fungus chitosan as fining agents for apple juice was compared to com. chitosan prepared from shrimp shells. The reaction temps. were investigated at 30, 35, and 40 °C with chitosan concentration at 0.1, 0.5, 0.7, and 1.0 g/l. Sample with chitosan treatment at 0.7 g/l and 40 °C reached maximum clarity. The clarity and color changes of the apple juice correlated closely for both fungus and shrimp chitosan treatment. The fungus chitosan proved highly effective in reducing the apple juice turbidity and gave lighter juices than the sample treated with shrimp chitosan.

ST chitosan Absidia apple juice clarification

IT Absidia glauca paradoxa  
 Apple juice  
 Clarification  
 Food processing  
 Turbidity

(fungus chitosan for clarification of apple juice)

IT 9012-76-4P, Chitosan

RL: FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fungus chitosan for clarification of apple juice)

ACCESSION NUMBER: 2006:120247 CAPLUS  
 DOCUMENT NUMBER: 144:198995  
 TITLE: Antimicrobial devices and compositions comprising silver, copper or zinc compounds  
 INVENTOR(S): Karandikar, Bhalchandra M.; Gibbins, Bruce L.; Cornell, Ken A.  
 PATENT ASSIGNEE(S): Acrymed, Inc., USA  
 SOURCE: PCT Int. Appl., 77 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006015317	A2	20060209	WO 2005-US27260	20050801
WO 2006015317	A3	20060706		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1781098	A2	20070509	EP 2005-778379	20050801
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
CN 101010004	A	20070801	CN 2005-80028750	20050801
IN 2007KN00735	A	20070713	IN 2007-KN735	20070228
PRIORITY APPLN. INFO.:			US 2004-592535P	P 20040730
			WO 2005-US27260	W 20050801

OTHER SOURCE(S): MARPAT 144:198995

AB The present invention provides methods and compns. for antimicrobial devices comprising metal containing compns. which are resistant to heat and light discoloration. The metal containing compns. may comprise salts or complexes of silver, copper or zinc. In one aspect, the metal salts may comprise metal salts of saccharin, acesulfame, long chain fatty acids, and alkyl dicarboxylic acids. The compns. further comprise polymers which form salts or complexes with silver, copper or zinc. The methods of the present invention comprise treating devices with the metal containing compns., including, but not limited to, such devices as woven wound care materials, catheters, patient care devices, and collagen matrixes. The present invention further comprises treatment of humans and animals with the antimicrobial devices described herein. For example, a silver saccharinate suspension was prepared by reacting 0.205 g sodium saccharinate dissolved in 10 mL water with 1 mL of a 1 M silver nitrate solution Maxorb (alginate/CMC fiber dressing) was soaked in the solution of 1 mL silver saccharinate suspension prepared in 10 mL ethanol, gently blotted and dried in oven at 45° to obtain an antimicrobial dressing. The antimicrobial activity of the dressing was verified by standard zone of inhibition (ZOI) assay. The 24 h ZOI against Staphylococcus aureus was 13/6.5, compared to 6.5/6.5 for untreated gauze used as a control.

IT Anesthetics

Antimicrobial agents  
Antiviral agents  
Coating materials  
Contact lenses  
Cotton fibers

Fungicides

Hydrogels  
Stability  
Superabsorbents  
Wound healing promoters

(antimicrobial devices and compns. comprising copper, silver, or zinc compds. and hydrophilic matrixes)

IT 2673-17-8P

RL: DEV (Device component use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antimicrobial devices and compns. comprising copper, silver, or zinc compds. and hydrophilic matrixes)

IT 50-81-7D, Ascorbic acid, silver complex 54-85-3, Isoniazide 57-92-1, Streptomycin, biological studies 58-14-0, Pyrimethamine 58-96-8D, Uridine, trifluoro derivs. 59-30-3D, Folic acid, silver complex 60-54-8, Tetracycline 61-33-6, biological studies 67-52-7D, Barbituric acid, silver complex 68-35-9, Sulfadiazine 69-53-4, Ampicillin 74-55-5, Ethambutol 80-08-0, Dapsone 81-07-2D, Saccharin, copper, silver or zinc salts 98-96-4, Pyrazinamide 100-33-4, Pentamidine 114-07-8, Erythromycin 154-21-2, Lincomycin 526-95-4D, D-Gluconic acid, silver complex 532-31-0, Silver benzoate 533-51-7, Silver oxalate 534-16-7, Silver carbonate 564-25-0, Doxycycline 1397-89-3, Amphotericin B 1403-66-3, Gentamicin 1701-93-5, Silver thiocyanate 2030-63-9, Clofazimine 2634-33-5D, 1,2-Benzisothiazol-3(2H)-one, derivs., silver salts 3507-99-1, Silver stearate 3508-01-8, Silver palmitate 4428-95-9, Foscarnet 5326-10-3D, Phosphoranilide, silver complex 6998-60-3, Rifamycin 7440-06-4D, Platinum, compds. 7440-22-4D, Silver, ascorbic acid complex 7440-57-5D, Gold, compds. 7542-37-2, Paromomycin 7722-84-1, Hydrogen peroxide, biological studies 7783-97-3, Silver iodate 7784-09-0, Silver phosphate 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose 9004-34-6D, Cellulose, derivs. 9004-62-0, Hydroxyethyl cellulose 9005-32-7, Alginic acid 9035-88-5, Silver alginate 10294-26-5, Silver sulfate 12284-74-1 12673-77-7, Silver hydroxide 13463-41-7, Zinc-pyrithione 18268-45-6, Silver laurate 18323-44-9, Clindamycin 19025-97-9, Silver salicylate 20667-12-3, Silver oxide 20963-87-5, Silver tartrate 21548-73-2, Silver sulfide 22257-44-9 22916-47-8, Miconazole 23149-52-2, Silver thiosulfate 24342-35-6 33665-90-6D, Acesulfame, copper, silver or zinc salts 41286-37-7, Silver zirconium phosphate 42880-01-3 57545-81-0 59277-89-3, Acyclovir 62448-20-8 65277-42-1, Ketoconazole 66518-73-8 71911-43-8 72559-06-9, Rifabutin 81103-11-9, Clarithromycin 82410-32-0, Ganciclovir 82419-36-1, Ofloxacin 83905-01-5, Azithromycin 84625-61-6, Itraconazole 85721-33-1, Ciprofloxacin 86386-73-4, Fluconazole 95233-18-4, Atovaquone 101367-05-9 101831-37-2, Diclazuril 110871-86-8, Sparfloxacin 113149-14-7, Silver hyaluronate 115399-80-9 296785-44-9  
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antimicrobial devices and compns. comprising copper, silver, or zinc compds. and hydrophilic matrixes)

IT 1306-06-5, Hydroxyapatite 1314-23-4, Zirconia, biological studies 1398-61-4, Chitin 7631-86-9, Silica, biological studies 9004-34-6, Cellulose, biological studies 9012-76-4, Chitosan 13463-67-7, Titania, biological studies 14807-96-6, Talc, biological

studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antimicrobial devices and compns. comprising copper, silver, or zinc  
compds. and hydrophilic matrixes)

L4 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:81873 CAPLUS

DOCUMENT NUMBER: 144:306747

TITLE: Novel derivatives of chitosan and their  
antifungal activities in vitro

AUTHOR(S): Guo, Zhanyong; Chen, Rong; Xing, Rong; Liu, Song; Yu,  
Huahua; Wang, Pibo; Li, Cuiping; Li, Pengcheng

CORPORATE SOURCE: Institute of Oceanology, Chinese Academy of Sciences,  
Qingdao, 266071, Peop. Rep. China

SOURCE: Carbohydrate Research (2006), 341(3), 351-354

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three Schiff bases of carboxymethylchitosan (CMCTS) were prepared,  
and their antifungal activities were assessed according to the method of  
Jasso de Rodriguez D. et al. (2005). 2-(2-Hydroxybenzylideneamino)-6-  
carboxymethylchitosan (HNCMCTS) and 2-(5-chloro-2-hydroxybenzylideneamino)-  
6-carboxymethylchitosan (HCCMCTS) had better inhibitory effects than those  
of chitosan or CMCTS against Fusarium oxysporum vasinfectum,  
Alternaria solani, and Valsa mali.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Novel derivatives of chitosan and their antifungal activities in  
vitro

AB Three Schiff bases of carboxymethylchitosan (CMCTS) were prepared,  
and their antifungal activities were assessed according to the method of  
Jasso de Rodriguez D. et al. (2005). 2-(2-Hydroxybenzylideneamino)-6-  
carboxymethylchitosan (HNCMCTS) and 2-(5-chloro-2-hydroxybenzylideneamino)-  
6-carboxymethylchitosan (HCCMCTS) had better inhibitory effects than those  
of chitosan or CMCTS against Fusarium oxysporum vasinfectum,  
Alternaria solani, and Valsa mali.

ST carboxymethylchitosan Schiff base prepn fungicide

IT Alternaria solani

Fusarium vasinfectum

Valsa mali

(control by fungicidal carboxymethylchitosan Schiff  
bases)

IT Fungicides

(preparation of fungicidal carboxymethylchitosan Schiff  
bases)

IT 9012-76-4, Chitosan

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(fungicidal activity of)

IT 83512-85-0P, Carboxymethylchitosan 869318-04-7P 869318-08-1P  
869318-09-2P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(preparation as fungicide)

IT 83512-85-0DP, Carboxymethylchitosan, Schiff bases

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(preparation of fungicidal carboxymethylchitosan Schiff  
bases)

L4 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1180665 CAPLUS  
DOCUMENT NUMBER: 144:310508  
TITLE: Preliminary study on chitosan isolated from  
Rhizopus japonicus  
AUTHOR(S): Zhang, Tao; Yu, Rong; Li, Lingling  
CORPORATE SOURCE: West China School of Pharmacy, Sichuan University,  
Chengdu, 610041, Peop. Rep. China  
SOURCE: Shipin Yu Fajiao Gongye (2004), 30(12), 66-70  
CODEN: SPYYDO; ISSN: 0253-990X  
PUBLISHER: Shipin Yu Fajiao Gongye  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

AB A simple method for the lab-scale isolation of chitosan from  
hyplal walls of Rhizopus japonicus was studied. The fungus  
strain was cultured with a reciprocal shaking at 170 r/min.  
Fungal mycelia was then harvested and the productivity determined The  
orthogonal exptl. results showed that culture medium with an initial pH  
5.0, the optimal carbon source amylum concentration at 20 g/L, the optimal  
nitrogen source peptone concentration at 10g/L and temperature of 26 degree  
were the  
most suitable conditions for mycelia and chitosan production The  
productivity of the dry weight of mycelia was 8.43 g/L under the optimal  
condition. After the mycelium was treated with sodium hydroxide  
twice and extracted with hydrochloric acid, the nature chitosan with  
a yield of 895 mg/L, which accounted for 10.58% of the dry weight of mycelia  
with a purity of 90.5% was obtained.

TI Preliminary study on chitosan isolated from Rhizopus japonicus

AB A simple method for the lab-scale isolation of chitosan from  
hyplal walls of Rhizopus japonicus was studied. The fungus  
strain was cultured with a reciprocal shaking at 170 r/min.  
Fungal mycelia was then harvested and the productivity determined The  
orthogonal exptl. results showed that culture medium with an initial pH.  
. . . optimal nitrogen source peptone concentration at 10g/L and temperature  
of 26  
degree were the most suitable conditions for mycelia and chitosan  
production The productivity of the dry weight of mycelia was 8.43 g/L under  
the  
optimal condition. After the mycelium was treated with sodium  
hydroxide twice and extracted with hydrochloric acid, the nature  
chitosan with a yield of 895 mg/L, which accounted for 10.58% of  
the dry weight of mycelia with a purity of. . .

ST chitosan Rhizopus

IT Fermentation

Rhizopus japonicus

(preliminary study on chitosan isolated from Rhizopus  
japonicus)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preliminary study on chitosan isolated from Rhizopus  
japonicus)

IT 9012-76-4P, Chitosan

RL: BSU (Biological study, unclassified); PUR (Purification or recovery);  
BIOL (Biological study); PREP (Preparation)  
(preliminary study on chitosan isolated from Rhizopus  
japonicus)

L4 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:983611 CAPLUS  
DOCUMENT NUMBER: 143:292527

TITLE: Bioavailability and improved delivery of alkaline pharmaceutical drugs  
 INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 792,273.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005196418	A1	20050908	US 2005-50434	20050204
US 2004214215	A1	20041028	US 2004-792273	20040304
WO 2006084174	A2	20060810	WO 2006-US3917	20060206
WO 2006084174	A3	20071004		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.:  
 US 2004-792273 A2 20040304  
 US 2003-452557P P 20030307  
 US 2005-50434 A 20050204

OTHER SOURCE(S): MARPAT 143:292527

AB Embodiments of the invention relate to a composition, a process of making the composition, and to the use of the composition The compns. include a mol. complex

formed between an alkaline pharmaceutical drug and at least one selected from a hydroxy acid, a polyhydroxy acid, a related acid, a lactone, or combinations thereof. The compns. provide improved bioavailability and improved delivery of the drug into the cutaneous tissues. For example, diphenhydramine hydrochloride 29 g (0.1 mol) was dissolved in water and 5 N sodium hydroxide generating diphenhydramine free base. Gluconolactone 18 g (0.1 mol) was added to form a mol. complex of 0.1 mol diphenhydramine free base with 0.1 mol gluconic acid/gluconolactone. The solution thus obtained was used for various forms of topical formulations including oil-in-water creams, lotions, gels and solns.

AB . . . into the cutaneous tissues. For example, diphenhydramine hydrochloride 29 g (0.1 mol) was dissolved in water and 5 N sodium hydroxide generating diphenhydramine free base. Gluconolactone 18 g (0.1 mol) was added to form a mol. complex of 0.1 mol diphenhydramine free base with 0.1 mol gluconic acid/gluconolactone. The solution thus obtained was used for various forms of topical formulations including oil-in-water creams,. . .

IT Anti-inflammatory agents  
 Antibacterial agents  
 Antiemetics  
 Antihistamines  
 Antiperspirants



Antiviral agents  
Drug bioavailability

Fungicides

Humectants

Keratosis

Sunscreens

Suntanning agents

(bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

IT 863910-51-4P

RL: COS (Cosmetic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(bioavailability and improved delivery of alkaline drugs by complexation with acids or lactones)

IT 50-21-5, Lactic acid, reactions 76-93-7, Benzilic acid, reactions 77-92-9, Citric acid, reactions 77-95-2, Quinic acid 79-14-1, Glycolic acid, reactions 80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 87-69-4D, oligomers 89-65-6, Isoascorbic acid 90-64-2, Mandelic acid 90-80-2, Gluconolactone 96-82-2, Lactobionic acid 109-52-4D, Pentanoic acid, stereoisomers, reactions 127-17-3, Pyruvic acid, reactions 133-37-9 147-24-0, Diphenhydramine hydrochloride 147-73-9, Erythruric acid 150-97-0, Mevalonic acid 156-06-9, Phenylpyruvic acid 298-12-4, Glyoxylic acid 300-85-6, 3-Hydroxybutanoic acid 320-77-4, Isocitric acid 328-51-8, 2-Ketooctanoic acid 473-81-4, Glyceric acid 488-31-3, Pentaric acid 503-66-2, 3-Hydroxypropanoic acid 515-30-0, Atrolactic acid 526-95-4, D-Gluconic acid 526-99-8, Galactaric acid 527-00-4, Allaric acid 527-03-7D, Heptaric acid, stereoisomers 534-41-8, Cellobionic acid 534-42-9, Maltobionic acid 534-74-7, Isomaltobionic acid 544-57-0, Cerebronic acid 552-63-6, Tropic acid 584-63-4 597-44-4, Citramalic acid 599-04-2, Pantolactone 600-15-7, 2-Hydroxybutanoic acid 600-18-0, 2-Ketobutanoic acid 611-73-4, Benzoylformic acid 617-31-2, 2-Hydroxypentanoic acid 617-57-2, Lactyl lactate 617-73-2, 2-Hydroxyoctanoic acid 636-69-1, 2-Hydroxyheptanoic acid 666-99-9, Agaricic acid 674-26-0, Mevalonolactone 685-73-4, Galacturonic acid 815-89-4, xylo-5-Hexulosonic acid 828-01-3, 3-Phenyllactic acid 1112-33-0, Pantoic acid 1310-73-2, Sodium hydroxide, reactions 1336-21-6, Ammonium hydroxide 1821-02-9, 2-Ketopentanoic acid 2492-75-3, 2-Ketohexanoic acid 2782-86-7D, Heptonic acid, stereoisomers 3063-04-5, Glucoheptonolactone 3327-64-8, Gulonolactone 3402-98-0, Iduronic acid 3646-68-2, Glucosaminic acid 3909-12-4, Threonic acid 3956-93-2, Idonic acid 5666-23-9, Altraric acid 5768-54-7, Idaric acid 5965-65-1, Lactobionolactone 6064-63-7, 2-Hydroxyhexanoic acid 6543-97-1, Mannaric acid 6556-12-3, Glucuronic acid 6703-05-5, Lyxaric acid 6708-50-5, Mannosaminic acid 6814-36-4, Mannuronic acid 6915-15-7, Malic acid 7270-86-2 7558-19-2D, Hexaric acid, stereoisomers 7760-07-8D, Hexonic acid, stereoisomers 10158-64-2, Xylaric acid 10191-35-2, 2,3,4-Trihydroxybutanoic acid 10237-77-1, 3-Hydroxypentanoic acid 13088-48-7, 2-Ketoheptanoic acid 13171-74-9, Pentonic acid 13382-27-9, Galactonic acid 13425-57-5, 5-Hexulosonic acid 13431-32-8, Laminaribionic acid 13752-84-6, Erythronic acid 15769-56-9, Guluronic acid 16533-48-5, xylo-2-Hexulosonic acid 16742-48-6, 2-Hydroxyeicosanoic acid 17812-24-7, Ribonic acid 17828-56-7, Xylonic acid 18404-70-1, Idonolactone 20246-52-0, Talonic acid 20246-53-1, Gulonic acid 20248-27-5, arabino-2-Hexulosonic acid 21675-38-7, Melibionic acid 22832-87-7, Miconazole nitrate 23351-51-1, Glucoheptonic acid 23593-75-1, Clotrimazole 24871-35-0, Altronic acid 25525-21-7, Glucaric acid 25596-90-1, Threonolactone 28060-81-3 28223-40-7, Lyxonic acid 28223-42-9, Allonic acid 28223-51-0, Alluronic acid 28223-52-1, Taluronic acid 28223-54-3,

arabino-5-Hexulosonic acid 28223-56-5, ribo-5-Hexulosonic acid  
 28630-70-8 28630-71-9 28700-18-7, Galacturonolactone 30450-85-2  
 30923-19-4, Lyxuronic acid 30923-20-7, Riburonic acid 30923-21-8,  
 Xyluronic acid 30923-39-8, Arabinuronic acid 32449-92-6,  
 Glucuronolactone 33012-62-3, Ribaric acid 35388-57-9, Piscidic acid  
 36088-30-9D, stereoisomers 42776-28-3, Maltobionolactone 52762-22-8,  
 Cellobionolactone 70803-53-1 73803-83-5, 2-keto-Gulonic acid  
 80490-57-9, 2-Ketododecanoic acid 81176-80-9, Galactosaminic acid  
 84710-55-4, Threuronic acid 84710-56-5, Erythruronic acid 84710-57-6,  
 Altruronic acid 91698-32-7 122242-55-1D, stereoisomers 122242-56-2D,  
 stereoisomers 214975-75-4, D-ribo-2-Hexulosonic acid 224785-91-5,  
 Vardenafil hydrochloride 318471-21-5 318471-23-7 318471-25-9  
 318471-27-1 318471-28-2 318471-36-2 318471-37-3 318471-57-7  
 762262-34-0D, Hepturonic acid, stereoisomers 763103-38-4D, stereoisomers  
 763103-39-5 763103-40-8D, stereoisomers 763103-41-9 763103-42-0  
 763103-43-1 763103-44-2 763103-45-3 763103-47-5 763103-48-6D,  
 stereoisomers 763103-49-7 763103-50-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(bioavailability and improved delivery of alkaline drugs by complexation  
 with acids or lactones)

IT 58-73-1DP, Diphenhydramine, gluconlactone/gluconic acid complexes  
 22916-47-8P, Miconazole 54910-89-3P, Fluoxetine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)

(bioavailability and improved delivery of alkaline drugs by complexation  
 with acids or lactones)

IT 863910-49-0P 863910-50-3P 863910-52-5P 863910-53-6P 863913-34-2P  
 863913-35-3P 863913-36-4P 863913-49-9P 863913-50-2P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)

(bioavailability and improved delivery of alkaline drugs by complexation  
 with acids or lactones)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-23-7,  
 Hydrocortisone 50-28-2, Estradiol, biological studies 50-78-2,  
 Acetylsalicylic acid 51-03-6, Piperonyl butoxide 51-21-8,  
 5-Fluorouracil 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin  
 57-13-6, Urea, biological studies 57-63-6, Ethinyl estradiol 58-95-7,  
 Vitamin E acetate 65-45-2, Salicylamide 67-73-2, Fluocinolone  
 acetone 67-78-7, Triamcinolone diacetate 68-26-8, Retinol 68-88-2,  
 Hydroxyzine 69-72-7, Salicylic acid, biological studies 76-22-2,  
 Camphor 76-25-5, Triamcinolone acetone 79-81-2, Retinyl palmitate  
 89-78-1, Menthol 93-60-7, Methyl nicotinate 94-36-0, Benzoyl peroxide,  
 biological studies 103-16-2, Monobenzene 108-46-3, Resorcinol,  
 biological studies 108-95-2, Phenol, biological studies 112-38-9,  
 Undecylenic acid 116-31-4, Retinal 118-56-9, Homosalate 118-60-5,  
 Octyl salicylate 119-36-8, Methyl salicylate 119-61-9, Benzophenone,  
 biological studies 123-31-9, Hydroquinone, biological studies  
 123-31-9D, Hydroquinone, drvs. 123-99-9, Azelaic acid, biological  
 studies 124-43-6, Carbamide peroxide 126-07-8, Griseofulvin  
 127-47-9, Retinyl acetate 131-57-7, Oxybenzone 136-77-6,  
 Hexylresorcinol 137-66-6, Ascorbyl palmitate 139-12-8, Aluminum  
 acetate 302-79-4, Retinoic acid 356-12-7, Fluocinonide 382-67-2,  
 Desoximetasone 404-86-4, Capsaicin 501-30-4, Kojic acid 1143-38-0,  
 Anthralin 1319-82-0, Aminocaproic acid 1321-11-5, Aminobenzoic acid  
 1321-23-9, Chloroxylonol 1327-41-9, Aluminum chlorohydroxide  
 1405-87-4, Bacitracin 1946-82-3, N-Acetyl-L-lysine 2152-44-5,  
 Betamethasone valerate 3380-34-5, Triclosan 4759-48-2 5466-77-3,  
 Octyl methoxycinnamate 5534-09-8, Beclomethasone dipropionate  
 5593-20-4, Betamethasone dipropionate 5611-51-8, Triamcinolone  
 hexacetone 6205-08-9, N-Acetylornithine 7446-70-0, Aluminum

chloride, biological studies 7488-56-4, Selenium sulfide 7512-17-6,  
 N-Acetylglucosamine 7704-34-9, Sulfur, biological studies 7722-84-1,  
 Hydrogen peroxide, biological studies 9012-76-4, Chitosan  
 13463-41-7, Zinc pyrithione 13609-67-1, Hydrocortisone 17-butyrate  
 15687-27-1, Ibuprofen 16395-58-7, N-Acetylprolinamide 21245-02-3,  
 Padimate O 21645-51-2, Aluminum hydroxide, biological studies  
 22204-53-1, Naproxen 25122-46-7, Clobetasol propionate 25655-41-8,  
 Povidone iodine 28088-64-4, Aminosalicyclic acid 29342-05-0, Ciclopirox  
 52645-53-1, Permethrin 57524-89-7, Hydrocortisone 17-valerate  
 66734-13-2, Aclovate 106685-40-9, Adapalene 112965-21-6, Calcipotriene  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination with; bioavailability and improved delivery of alkaline drugs  
 by complexation with acids or lactones)

L4 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:727014 CAPLUS

DOCUMENT NUMBER: 143:175041

TITLE: Production of chitosan-containing fibers  
 having good antifungal and antibacterial activity

INVENTOR(S): Kirilenko, Yu. K.; Frolov, V. G.; Nagapetyan, R. A.;  
 Kolomiets, T. V.; Baykov, A. M.; Butuzov, I. N.

PATENT ASSIGNEE(S): Obshchestvo s Ogranichennoi Otvetstvennost'yu  
 "Invest-Farm", Russia

SOURCE: Russ., No pp. given

CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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RU 2258102	C1	20050810	RU 2004-116363	20040601
PRIORITY APPLN. INFO.:			RU 2004-116363	20040601

AB Chitosan-containing fibers having good antifungal and antibacterial  
 activity are produced by milling chitin to 10-20 mesh, subjecting chitin  
 to deacetylation to a deacetylation degree > 91%, subjecting  
chitosan to xanthation, and wet forming the fibers. Preferably,  
 the chitosan-containing fibers have a chitosan-chitin  
 ratio > 10:1. Thus, chitin was milled to 10 mesh, and subjected to  
 deacetylation using a 55%-aqueous NaOH solution at 98° for 5.5 h to obtain  
chitosan with a deacetylation degree of 94%. The NaOH-containing  
chitosan (filtered and pressed) was subjected to xanthation using  
 carbon disulfide (50% based on chitosan) at 19°. The  
chitosan viscose was mixed with cellulose viscose (1:3), and  
 fibers having good antibacterial properties and containing 10.1% of  
chitosan were produced by a wet spinning method.

TI Production of chitosan-containing fibers having good antifungal  
 and antibacterial activity

AB Chitosan-containing fibers having good antifungal and antibacterial  
 activity are produced by milling chitin to 10-20 mesh, subjecting chitin  
 to deacetylation to a deacetylation degree > 91%, subjecting  
chitosan to xanthation, and wet forming the fibers. Preferably,  
 the chitosan-containing fibers have a chitosan-chitin  
 ratio > 10:1. Thus, chitin was milled to 10 mesh, and subjected to  
 deacetylation using a 55%-aqueous NaOH solution at 98° for 5.5 h to obtain  
chitosan with a deacetylation degree of 94%. The NaOH-containing  
chitosan (filtered and pressed) was subjected to xanthation using  
 carbon disulfide (50% based on chitosan) at 19°. The  
chitosan viscose was mixed with cellulose viscose (1:3), and

fibers having good antibacterial properties and containing 10.1% of chitosan were produced by a wet spinning method.

ST chitin deacetylation antifungal antibacterial chitosan fiber  
prodn

IT Rayon, uses  
RL: BSU (Biological study, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(chitosan-containing; production of chitosan-containing fibers having good antifungal and antibacterial activity)

IT Synthetic polymeric fibers, uses  
RL: BSU (Biological study, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(chitosan; production of chitosan-containing fibers having good antifungal and antibacterial activity)

IT Antibacterial agents  
Deacetylation  
Fungicides  
(production of chitosan-containing fibers having good antifungal and antibacterial activity)

IT 9012-76-4P, Chitosan  
RL: BSU (Biological study, unclassified); CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(fibers; production of chitosan-containing fibers having good antifungal and antibacterial activity)

IT 75-15-0, Carbon disulfide, processes 1310-73-2, Sodium hydroxide, processes 1398-61-4, Chitin  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
(production of chitosan-containing fibers having good antifungal and antibacterial activity)

L4 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:324038 CAPLUS  
DOCUMENT NUMBER: 142:397825  
TITLE: Biocompatible, biostable coating of medical surfaces composed of polysulfone and hydrophilic polymers  
INVENTOR(S): Horres, Roland; Hoffmann, Michael; Faust, Volker; Hoffmann, Erika; Di Biase, Donato  
PATENT ASSIGNEE(S): Hemoteq G.m.b.H., Germany  
SOURCE: PCT Int. Appl., 57 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005032611	A2	20050414	WO 2004-DE2184	20040929
WO 2005032611	A3	20070322		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,			

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

DE 102004020856	A1	20050414	DE 2004-102004020856	20040428
AU 2004277302	A1	20050414	AU 2004-277302	20040929
CA 2540382	A1	20050414	CA 2004-2540382	20040929
EP 1667743	A2	20060614	EP 2004-786896	20040929
EP 1667743	B1	20080102		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

BR 2004014849	A	20061121	BR 2004-14849	20040929
JP 2007508039	T	20070405	JP 2006-527276	20040929
CN 101094698	A	20071226	CN 2004-80028149	20040929
AT 382377	T	20080115	AT 2004-786896	20040929
US 2005129731	A1	20050616	US 2004-979977	20041103
IN 2006MN00281	A	20070615	IN 2006-MN281	20060310
MX 2006PA03270	A	20061009	MX 2006-PA3270	20060323

PRIORITY APPLN. INFO.:  
 DE 2003-10345132 A 20030929  
 US 2003-516295P P 20031103  
 DE 2004-102004020856A 20040428  
 US 2004-571582P P 20040517  
 WO 2004-DE2184 W 20040929

AB The invention relates to medical products comprising at least one biocompatible biostable polysulfone coating. Said polysulfone coating makes it possible, via the admixt. of an adequate quantity of at least one hydrophilic polymer, to control the elution kinetics of the at least one antiproliferative, anti-inflammatory, antiphlogistic, and/or antithrombogenic agent that is introduced and/or applied while allowing different agents or agent concns. to be spatially separated with the aid of the layer system of biostable polymers. Also disclosed are a method for producing said medical products and the use thereof particularly in the form of stents for preventing restenosis. Thus a 2 g base-coat solution for spray coating contained 17.6 mg polyethersulfone(Udel form Solvay) in chloroform. The 3 g chloroformic topcoat solution included 25.2 g polyethersulfone and 1,2 mg PVP.

AB . . . said medical products and the use thereof particularly in the form of stents for preventing restenosis. Thus a 2 g base-coat solution for spray coating contained 17.6 mg polyethersulfone(Udel form Solvay) in chloroform. The 3 g chloroformic topcoat solution included 25.2.

IT 5-HT antagonists  
 Anti-inflammatory agents  
 Antibiotics  
 Anticoagulants  
 Antihistamines  
 Antipyretics  
 Antitumor agents  
 Antiviral agents  
 Biocompatibility  
 Coating materials  
 Cytokine inhibitors  
Fungicides  
 Human  
 Hydrophilicity  
 Porosity  
 Porous materials  
 Vasodilators

(biocompatible, biostable coating of medical surfaces composed of polysulfone and hydrophilic polymers)

IT Polysulfones, biological studies  
 RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);  
 USES (Uses)  
 (chlorosulfonated/S-alkoxy dechlorinated; biocompatible, biostable coating of medical surfaces composed of polysulfone and hydrophilic polymers)

IT 56-81-5, Glycerin, biological studies 80-05-7D, iminocarbonate polymers 3233-46-3 6066-82-6D, derivs. of collagen 7585-39-9,  $\beta$ -Cyclodextrin 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-69-5, Pectinic acid 9002-89-5, Polyvinylalcohol 9003-05-8, Polyacrylamide 9003-11-6 9003-39-8, Polyvinylpyrrolidone 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9012-76-4, Chitosan 9012-76-4D, Chitosan, N-carboxymethylated/acetylated 24937-72-2, Polymaleic acid anhydride 24980-41-4, Poly- $\epsilon$ -caprolactone 25135-51-7 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)] 25249-16-5 25322-68-3, Polyethyleneglycol 25322-69-4, Polypropyleneglycol 25667-42-9, Polyethersulfone 25667-42-9D, Polyethersulfone, substituted derivative 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26099-09-2 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26354-94-9, Polyvalerolactone 27030-79-1 27613-96-3 29223-92-5 31852-84-3 37353-50-7 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) 51309-43-4 52224-87-0 52352-27-9, Polyhydroxybutyric acid 53260-52-9, N-Desulfo heparin 53260-52-9D, N-Desulfo heparin, reacylated 61128-18-5 90409-77-1 102190-94-3, Polyhydroxyvaleric acid 113883-69-5 128171-16-4 143715-04-2 159350-71-7, Poly- $\epsilon$ -Decalactone 214259-59-3  
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (biocompatible, biostable coating of medical surfaces composed of polysulfone and hydrophilic polymers)

L4 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238420 CAPLUS  
 DOCUMENT NUMBER: 142:322334  
 TITLE: Baby care skin protectant compositions containing zeolites for diaper rash  
 INVENTOR(S): Gupta, Shyam K.  
 PATENT ASSIGNEE(S): Bioderm Research, USA  
 SOURCE: U.S. Pat. Appl. Publ., 12 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 9  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
US 2005058672	A1	20050317	US 2003-605191	20030914
US 2007237834	A1	20071011	US 2007-760466	20070608
PRIORITY APPLN. INFO.:			US 2003-418495	A2 20030418
			US 2003-605191	A2 20030914

AB The present invention provides a comprehensive solution to skin problems of infants and incontinent adults related to diaper rash, also known as diaper dermatitis. This is based on certain novel divalent metal and quaternary ammonium complexes (ion-pairs) of zeolites (that are made by an in-situ process), which in synergistic combination with certain other

compsn., provide a comprehensive treatment for diaper rash. The treatment encompasses the following aspects: (1) deactivation of lipase and protease enzymes on skin surface, (2) the controlled-release delivery of skin protectant compsn., such as divalent metal zinc cation, (3) trapping of acidic and alkaline chems. deposited on skin from body exudates and enzyme activity, (4) controlled-release delivery of anti-inflammatory agents, and cyclooxygenase (COX) and lipoxygenase (LOX) enzyme inhibitors, (5) controlled-release delivery of antibacterial and antifungal compsn., and (6) absorption of excess moisture in the diaper zone. For example, to a clear solution obtained by mixing 1.36 parts of zinc chloride and 78.64 parts of glycerin, 20.0 parts of zeolite type 4A was added. The mixture contained zinc zeolite (100% zeolite exchanged), made by the in-situ ion-pair exchange.

- IT Zeolites (synthetic), biological studies  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (Zn; skin care compsn. containing zeolites for prevention/treatment of diaper rash)
- IT Quaternary ammonium compounds, biological studies  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (alkylbenzyltrimethyl, chlorides, reaction products with zeolite; skin care compsn. containing zeolites for prevention/treatment of diaper rash)
- IT Absorbents  
 Analgesics  
 Anesthetics  
 Anti-inflammatory agents  
 Antibacterial agents  
 Antimicrobial agents  
 Beeswax  
 Coloring materials  
 Cotton fibers  
 Disposable diapers  
Fungicides  
 Gossypium hirsutum  
 Gums and Mucilages  
 Humectants  
 Ion exchangers  
 Ion pairs  
 Perfumes  
 Permeation enhancers  
 Preservatives  
 Seed  
 Shampoos  
 Silk  
 Solubilizers  
 Sunscreens  
 Surfactants  
 Wheat flour  
 (skin care compsn. containing zeolites for prevention/treatment of diaper rash)
- IT Acids, biological studies  
Bases, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (trapping of, on skin surface; skin care compsn. containing zeolites for prevention/treatment of diaper rash)
- IT 50-81-7, Ascorbic acid, biological studies    50-81-7D, Ascorbic acid, salts    56-81-5, Glycerin, biological studies    57-11-4, Stearic acid, biological studies    57-55-6, Propylene glycol, biological studies  
 58-95-7, Vitamin E acetate    59-67-6, Niacin, biological studies

59-67-6D, Niacin, esters 70-18-8, Glutathione, biological studies  
 77-52-1, Ursolic acid 79-81-2, Vitamin A palmitate 93-60-7, Methyl  
 nicotinate 94-13-3, Propylparaben 94-44-0, Benzyl nicotinate  
 94-62-2, Piperine 97-59-6, Allantoin 98-92-0, Niacinamide 99-76-3,  
 Methylparaben 102-71-6, Triethanolamine, biological studies 112-03-8D,  
 Quaternium-10, zeolite 117-39-5, Quercetin 122-99-6, Phenoxyethanol  
 127-40-2, Lutein 146-48-5, Yohimbine 153-18-4, Rutin 305-84-0,  
 Carnosine 327-97-9, Chlorogenic acid 404-86-4, Capsaicin 471-53-4,  
 Glycyrrhetic acid 472-11-7, Ruscogenin 472-61-7, Astaxanthin  
 476-66-4, Ellagic acid 477-32-7, Visnadine 491-70-3, Luteolin  
 501-36-0, Resveratrol 502-65-8, Lycopene 512-04-9, Diosgenin  
 520-26-3, Hesperidin 520-27-4, Diosmin 520-36-5, Apigenin 528-58-5,  
 Cyanidin 531-75-9, Esculotide 548-04-9, Hypericin 602-41-5,  
 Thiocolchicoside 1200-22-2,  $\alpha$ -Lipoic acid 1314-13-2, Zinc oxide,  
 biological studies 1344-28-1, Alumina, biological studies 1406-18-4,  
 Vitamin E 1847-58-1, Sodium lauryl sulfoacetate 4773-96-0, Mangiferin  
 5508-58-7, Andrographolide 6147-11-1, Mangostin 6683-19-8, Tinogard TT  
 6805-41-0, Escin 6829-55-6, Tocotrienol 6899-10-1D, Cetrimonium,  
 zeolite 7487-88-9, Magnesium sulfate, biological studies 7778-18-9,  
 Calcium sulfate 8011-96-9, Calamine 9000-01-5, Gum arabic 9000-07-1,  
 Carrageenan 9000-40-2, Locust bean gum 9000-69-5, Pectin 9002-18-0,  
 Agar 9004-34-6, Cellulose, biological studies 9005-25-8, Starch,  
 biological studies 9005-32-7D, Alginic acid, salts 9005-38-3, Algin  
 9005-80-5, Inulin 9005-80-5D, Inulin, esters 9006-65-9, Dimethicone  
 9012-76-4, Chitosan 10043-52-4, Calcium chloride, biological  
 studies 11099-07-3, GMS-SE 11138-66-2, Xanthan gum 11138-66-2D,  
 Xanthan, dehydro derivs. 12001-79-5, Vitamin K 13463-67-7, Titanium  
 dioxide, biological studies 14492-68-3D, Quaternium-7, zeolite  
 14807-96-6, Talc, biological studies 16830-15-2, Asiaticoside  
 20283-92-5, Rosmarinic acid 25322-68-3, Polyethylene glycol  
 26006-22-4D, Polyquaternium-5, zeolite 26062-79-3D, Polyquaternium-6,  
 zeolite 26590-05-6D, Polyquaternium-7, zeolite 32619-42-4, Oleuropein  
 36062-04-1, Tetrahydrocurcumin 36653-82-4, Cetyl alcohol 53633-54-8D,  
 Polyquaternium-11, zeolite 55306-04-2, Sericoside 59219-65-7,  
 Darutoside 63451-27-4D, Polyquaternium-2, zeolite 66634-12-6,  
 Niacinamide salicylate 71010-52-1, Gellan gum 75345-27-6D,  
 Polyquaternium-1, zeolite 81859-24-7D, Polyquaternium-10, zeolite  
 92183-41-0D, Polyquaternium-4, zeolite 95144-24-4D, Polyquaternium-16,  
 zeolite 95832-09-0, Liquapar 150599-70-5D, Polyquaternium-44, zeolite  
 173833-36-8D, Quaternium 82, zeolite 174761-16-1D, Polyquaternium-46,  
 zeolite 174882-69-0, Pycnogenol 205537-77-5 322645-84-1, Polawax  
 697291-65-9, Phytosan 714950-07-9, Aloe Butter 719282-79-8D,  
 Polyquaternium 59, zeolite 801297-48-3D, Quaternium 79, zeolite  
 848084-68-4, Stimutex

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)

(skin care compns. containing zeolites for prevention/treatment of diaper  
 rash)

L4 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:78076 CAPLUS

DOCUMENT NUMBER: 142:151584

TITLE: Target biological material separation from mixtures  
 using superparamagnetic polysaccharide matrices and  
 formation of the superparamagnetic particles

INVENTOR(S): Marchessault, Robert H.; Shingel, Kirill; Ryan,  
 Dominic; Llanes, Francisco; Coquoz, Didier G.; Vinson,  
 Robert K.

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U.S.



Ser. No. 352,280.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005019755	A1	20050127	US 2004-765750	20040127
US 2004146855	A1	20040729	US 2003-352280	20030127
PRIORITY APPLN. INFO.:			US 2003-352280	A2 20030127

AB The present invention features a method for preparing superparamagnetic iron particles by the in situ formation of these particles in a cross-linked starch matrix or by the formation of a superparamagnetic chitosan material. The superparamagnetic materials are formed by mild oxidation of ferrous ion, either entrapped into a cross-linked starch matrix or as a chitosan-Fe(II) complex, with the mild oxidizing agent, nitrate, under alkaline conditions. The present invention further features superparamagnetic iron compns. prepared by the method of the invention. The compns. of the invention are useful for the separation, isolation, identification, or purification of biol. materials. Chitosan and FeCl<sub>2</sub> were incubated to form a complex, the complex was treated with a solution of NH<sub>4</sub>OH and then oxidized with KNO<sub>3</sub> to prepare superparamagnetic chitosan particles (MagChi). The particles were treated with glutaraldehyde and then reacted with protein A. Sodium cyanoborohydride solution was added to the reaction mixture and incubated overnight. The particles were magnetically separated from unreacted protein in the supernatant. Glycine and sodium cyanoborohydride solution were incubated with the particles for one hour. The resulting MagChi matrix modified by covalent attachment to protein A (MagChi-Protein A) was used to magnetically bind IgG. The MagChi-Protein A matrix showed saturation binding at 2.5 mg of IgG/mg matrix and greater than 90% of the IgG bound could be recovered.

AB . . . by the in situ formation of these particles in a cross-linked starch matrix or by the formation of a superparamagnetic chitosan material. The superparamagnetic materials are formed by mild oxidation of ferrous ion, either entrapped into a cross-linked starch matrix or as a chitosan-Fe(II) complex, with the mild oxidizing agent, nitrate, under alkaline conditions. The present invention further features superparamagnetic iron compns. prepared by. . . of the invention. The compns. of the invention are useful for the separation, isolation, identification, or purification of biol. materials. Chitosan and FeCl<sub>2</sub> were incubated to form a complex, the complex was treated with a solution of NH<sub>4</sub>OH and then oxidized with KNO<sub>3</sub> to prepare superparamagnetic chitosan particles (MagChi). The particles were treated with glutaraldehyde and then reacted with protein A. Sodium cyanoborohydride solution was added to. . .

ST superparamagnetic particle prepn alk nitrate crosslinked starch matrix; biol material sepn superparamagnetic particle polysaccharide matrix; chitosan iron superparamagnetic particle prepn nitrate; protein A modified chitosan iron superparamagnetic particle; IgG sepn protein A chitosan superparamagnetic particle

IT Proteins

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(A, conjugates, with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of

superparamagnetic particles)

IT Proteins  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (BPI (bactericidal/permeability-increasing), rBPI-21, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Insulin-like growth factor-binding proteins  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (IGFBP-3, rhIGF-I complexes with, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Antibodies and Immunoglobulins  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (IgG, binding to supermagnetic chitosan matrix-protein A conjugate; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Antibodies and Immunoglobulins  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (IgG1, fusion proteins with LFA-3, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Fusion proteins (chimeric proteins)  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
 (LFA-3-IgG1, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Cell  
 Eubacteria  
Fungi  
 Organelle  
 Protozoa  
 Respiratory syncytial virus  
 Vaccines  
 Virus  
 Yeast  
 (as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Albumins, analysis  
 Angiogenic factors  
 Antibodies and Immunoglobulins  
 Blood-coagulation factors  
 Bone morphogenetic protein 7  
 Carbohydrates, analysis  
 Cytokines  
 Enzymes, analysis  
 Fibrins  
 Glycoproteins

Growth factors, animal

Interferons

Interleukin 11

Interleukin 2

Interleukins

Lipids, analysis

Lipoproteins

Peptides, analysis

Platelet-derived growth factors

Proteins

Tachykinins

Tumor necrosis factors

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Lipids, analysis

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(cationic, separation, isolation, identification or purification of; target

biol.

material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Polysaccharides, preparation

RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(complexes, with iron oxide; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Ligands

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(conjugated, with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Glycolipids

Glycopeptides

Glycosaminoglycans, preparation

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(conjugates with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Lipids, preparation

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(conjugates, cationic, with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Glycoproteins

Peptides, preparation

Polynucleotides

Proteins

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(conjugates, with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT pH

(effect on BSA binding to supermagnetic chitosan matrix; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT LFA-3 (antigen)

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(fusion proteins with IgG1, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Glycosaminoglycans, analysis

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(matrix or as biol. entity separated; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Biochemical compounds

RL: PUR (Purification or recovery); PREP (Preparation)

(matrix or covalently attached to polysaccharide matrix; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Proteins

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(poetins, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Albumins, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(serum, attachment to superparamagnetic contramid or chitosan particles; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Bases, uses

RL: NUU (Other use, unclassified); USES (Uses)

(starch matrix-entrapped ferrous ions oxidation with nitrate in; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Glycoconjugates

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(with superparamagnetic polysaccharide matrix and having affinity for target entity; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Interferons

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

( $\alpha$ , as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Interferons

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

( $\beta$ , as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT Interferons

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

( $\gamma$ , as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT 9073-56-7P, Alronidase

RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(Alronidase, as target biol. material; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT 9004-34-6DP, Avicel, complexes with iron oxide

RL: ARG (Analytical reagent use); NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(Avicel; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

IT 7440-70-2P, Blood-coagulation factor IV, analysis 8001-27-2P, Hirudin  
9001-28-9P, Factor IX 9001-42-7P,  $\alpha$ -Glucosidase 9001-92-7P,  
Protease 9001-99-4P, RNase 9002-12-4P, Urate oxidase 9002-62-4P,  
Prolactin, analysis 9002-64-6P, Parathyroid hormone 9002-67-9P, LH  
9002-68-0P, Follicle-stimulating hormone 9002-69-1P, Relaxin  
9002-71-5P, Thyroid-stimulating hormone 9002-72-6P, Growth hormone  
9003-98-9P, DNase 9004-10-8P, Insulin, analysis 9007-12-9P, Calcitonin  
9014-42-0P, Thrombopoietin 9025-35-8P 9026-93-1P, Adenosine deaminase  
9034-39-3P, Somatotropin-releasing hormone 11096-26-7P, Erythropoietin  
37228-64-1P, Glucocerebrosidase 62229-50-9P, Epidermal growth factor  
62683-29-8P, Colony-stimulating factor 65312-43-8P, Factor VIIa  
67763-96-6DP, IGF-I, complexes with rhIGFBP-3 76901-00-3P, Platelet  
activating factor-acetylhydrolase 83869-56-1P, GM-CSF 106096-92-8P  
106096-93-9P, Basic fibroblast growth factor 113189-02-9P,  
Antihemophilic factor 127464-60-2P, Vascular endothelial growth factor  
139639-23-9P, Tissue plasminogen activator 140608-64-6P, Muromomab CD3  
143003-46-7P, Ceredase 143011-72-7P, Granulocyte-colony stimulating  
factor 143653-53-6P, Abciximab 145941-26-0P, Oprelvekin  
152923-56-3P, Daclizumab 169494-85-3P, Leptin 170277-31-3P, Infliximab  
174722-31-7P, Rituximab 179045-86-4P, Basiliximab 180288-69-1P,  
Trastuzumab 188039-54-5P, Palivizumab 194100-83-9P, Thyrotropin alfa  
205923-56-4P, Cetuximab 205944-50-9P, Osteoprotegerin  
RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)

(as target biol. material; target biol. material separation from mixts.)

- using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 1336-21-6, Ammonium hydroxide  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (for alkaline conditions; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 9004-54-0DP, Dextran, crosslinked, complexes with iron oxide, preparation 9005-79-2DP, Glycogen, complexes with iron oxide  
 RL: ARG (Analytical reagent use); NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (matrix; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 9004-34-6, Cellulose, reactions 9004-54-0, Dextran, reactions 9004-61-9, Hyaluronic acid 9005-25-8, Starch, reactions 9005-32-7, Alginic acid 9005-79-2, Glycogen, reactions 9012-76-4, Chitosan 264622-70-0, Contramid  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (matrix; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 1317-61-9DP, Iron oxide (Fe<sub>3</sub>O<sub>4</sub>), complexes with polysaccharides 264622-70-0DP, Contramid, complexes with iron oxide  
 RL: ARG (Analytical reagent use); NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation and TEMPO-mediated oxidation of; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 1309-37-1P, Ferric oxide, preparation  
 RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (superparamagnetic particles in starch matrix; target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 1398-61-4DP, Chitin, complexes with iron oxide 9004-61-9DP, Hyaluronic acid, complexes with iron oxide 9005-25-8DP, Starch, complexes with iron oxide 9012-76-4DP, Chitosan, complexes with iron oxide 9014-76-0DP, Sephadex, complexes with iron oxide  
 RL: ARG (Analytical reagent use); NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 1310-73-2, Sodium hydroxide, uses 7647-15-6, Sodium bromide, uses 25895-60-7, Sodium cyanoborohydride  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)
- IT 9012-76-4DP, Chitosan, dimethylamino- 72187-43-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (target biol. material separation from mixts. using superparamagnetic polysaccharide matrixes and formation of superparamagnetic particles)

ACCESSION NUMBER: 2004:896692 CAPLUS  
 DOCUMENT NUMBER: 142:136973  
 TITLE: Natural polymer chitosan derivative using  
 azole derivative and preparation method thereof  
 INVENTOR(S): Ryu, Seong Ryuol  
 PATENT ASSIGNEE(S): S. Korea  
 SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given  
 CODEN: KRXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Korean  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2001098207	A	20011108	KR 2000-22980	20000428
PRIORITY APPLN. INFO.:			KR 2000-22980	20000428

AB A novel natural polymer chitosan derivative and its optical isomers  
 using an azole derivative, its preparation method and its use as an antifungus  
 are  
 provided, wherein the chitosan derivative is improved in the  
 antifungal activity. The chitosan derivative is represented by the  
 formula I. The preparation method comprises the steps of coupling the compound  
 of  
 the formula II with the compound of the formula III in the presence of a  
base or in a solvent. In the formula I and the reaction formula  
 I, R1 is 1,3-imidazole or 1,2,4-triazole; R1, R2, R3, R4 and R5 are  
 independent each another and are H, a C1-6 alkyl, C1-6 alkoxy or OH, and  
 one among them comprises a substituent comprising a dioxolane ring; K is  
 N=CH or NH-CH2; n=0-5; and n1 is a d.p. and is an integer of 0-10,000.  
 Preferably the solvent is selected from the group consisting of methanol,  
 ethanol, 2-ethoxyethanol, dimethylacetamide, acetonitrile, DMSO,  
 diethylaniline, iso-Pr alc., acetic acid, lactic acid, HCl and their  
 mixts.; and the base is selected from K2CO3, NaOMe, NaOEt, KOH,  
 triethylamine, pyridine and their mixts.

TI Natural polymer chitosan derivative using azole derivative and  
 preparation method thereof

AB A novel natural polymer chitosan derivative and its optical isomers  
 using an azole derivative, its preparation method and its use as an antifungus  
 are  
 provided, wherein the chitosan derivative is improved in the  
 antifungal activity. The chitosan derivative is represented by the  
 formula I. The preparation method comprises the steps of coupling the compound  
 of  
 the formula II with the compound of the formula III in the presence of a  
base or in a solvent. In the formula I and the reaction formula  
 I, R1 is 1,3-imidazole or 1,2,4-triazole; R1, R2, . . . of methanol,  
 ethanol, 2-ethoxyethanol, dimethylacetamide, acetonitrile, DMSO,  
 diethylaniline, iso-Pr alc., acetic acid, lactic acid, HCl and their  
 mixts.; and the base is selected from K2CO3, NaOMe, NaOEt, KOH,  
 triethylamine, pyridine and their mixts.

ST natural chitosan azole deriv prepn

IT Fungicides  
 (preparation of chitosan azole derivative with improved antifungal  
 activity)

IT 9012-76-4DP, Chitosan, azole derivs.  
 RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of chitosan azole derivative with improved antifungal  
 activity)

L4 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:799452 CAPLUS  
DOCUMENT NUMBER: 141:301435  
TITLE: Acidic drug complexes for improved bioavailability and delivery  
INVENTOR(S): Yu, Ruey J.; Van Scott, Eugene J.  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 33 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004082628	A2	20040930	WO 2004-US8112	20040317
WO 2004082628	A3	20041119		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004220264	A1	20041104	US 2004-801134	20040316
AU 2004222305	A1	20040930	AU 2004-222305	20040317
CA 2519126	A1	20040930	CA 2004-2519126	20040317
EP 1603549	A2	20051214	EP 2004-757550	20040317
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
PRIORITY APPLN. INFO.:			US 2003-454631P	P 20030317
			US 2004-801134	A 20040316
			WO 2004-US8112	A 20040317

OTHER SOURCE(S): MARPAT 141:301435

AB Embodiments of the invention relate to a composition, a process of making the composition, and to the use of the composition The compns. include a mol. complex

formed between an acidic pharmaceutical drug and at least one functional substance. The compns. provide improved bioavailability and improved delivery of the drug into the cutaneous tissues. For example, methotrexate complex with L-lysine was found to have less skin irritation when applying topically to treat psoriasis on the forearm.

IT Analgesics  
Anesthetics  
Anti-inflammatory agents  
Antiemetics  
Antihistamines  
Antiperspirants  
Antiviral agents  
Cardiovascular agents  
Dentifrices  
Dermatitis  
Eczema  
Fungicides



Gingiva, disease  
 Hair preparations  
 Humectants  
 Motion sickness  
 Psoriasis  
 Shale oils  
 Skin, disease  
 Sunscreens  
 Suntanning agents  
 Wart

(topical compns. containing acidic active ingredient complexes with amino acids and their derivs. for improved skin care and treatment of skin conditions)

IT 686351-80-4P 764724-06-3P 764724-07-4P 764724-08-5P 764724-09-6P  
 764724-10-9P 764724-11-0P 764724-12-1P 764724-13-2P 764724-14-3P  
 764724-15-4P 764724-16-5P

RL: ADV (Adverse effect, including toxicity); COS (Cosmetic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(topical compns. containing acidic active ingredient complexes with amino acids and their derivs. for improved skin care and treatment of skin conditions)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone 21-acetate 50-06-6D, Phenobarbital, complexes with amino acid derivs. 50-23-7, Hydrocortisone 50-28-2, Estradiol, biological studies 50-48-6, Amitriptyline 50-78-2, Acetyl salicylic acid 50-81-7, Ascorbic acid, biological studies 51-03-6, Piperonyl butoxide 51-21-8, 5-Fluorouracil 51-52-5D, Propyl thiouracil, complexes with amino acid derivs. 51-55-8, Atropine, biological studies 52-67-5D, Penicillamine, complexes with amino acid derivs. 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 54-31-9D, Furosemide, complexes with amino acid derivs. 55-56-1, Chlorhexidine 57-13-6, Urea, biological studies 57-41-0D, Phenytoin, complexes with amino acid derivs. 57-63-6, Ethinyl estradiol 58-54-8D, Ethacrynic acid, complexes with amino acid derivs. 58-55-9D, Theophylline, complexes with amino acid derivs. 58-73-1, Diphenhydramine 58-94-6D, Chlorothiazide, complexes with amino acid derivs. 58-95-7, Vitamin e acetate 59-33-6 59-42-7, Phenylephrine 59-46-1, Procaine 59-66-5D, Acetazolamide, complexes with amino acid derivs. 60-54-8, Tetracycline 60-87-7D, Promethazine, propionate 64-65-3, Bemegride 64-77-7D, Tolbutamide, complexes with amino acid derivs. 65-45-2, Salicylamide 67-73-2, Fluocinolone acetonide 67-78-7, Triamcinolone diacetate 68-26-8, Retinol 68-35-9, Sulfadiazine 68-41-7, Cycloserine 68-88-2, Hydroxyzine 69-53-4D, Ampicillin, complexes with amino acid derivs. 69-72-7D, Salicylic acid, amino dervis., biological studies 69-72-7D, Salicylic acid, complexes with amino acid derivs. 70-26-8D, L-Ornithine, complexes with acidic drugs 71-00-1D, Histidine, complexes with acidic drugs 72-14-0D, Sulfathiazole, complexes with amino acid derivs. 73-22-3D, L-Tryptophan, complexes with acidic drugs 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 76-74-4D, Pentobarbital, complexes with amino acid derivs. 79-81-2, Retinyl palmitate 80-32-0D, Sulfachlorpyridazine, complexes with amino acid derivs. 81-81-2D, Warfarin, complexes with amino acid derivs. 84-22-0, Tetrahydrozoline 86-21-5, Pheniramine 86-22-6, Brompheniramine 88-04-0, Chloroxylenol 89-83-8, Thymol 90-45-9, Aminacrine 90-82-4, Pseudoephedrine 93-14-1, Guaifenesin 94-20-2D, Chlorpropamide, complexes with amino acid derivs. 94-24-6, Tetracaine 94-36-0D, Benzoyl peroxide, complexes with amino acid derivs. 103-16-2, Monobenzene 103-90-2D, Acetaminophen, complexes with amino acid derivs. 104-98-3D, Urocanic acid, complexes with amino acid derivs. 108-46-3, Resorcinol, biological studies 108-95-2, Phenol, biological studies

112-38-9, Undecylenic acid 113-92-8, Chlorpheniramine 114-07-8, Erythromycin 116-31-4, Retinal 116-44-9D, Sulfapyrazine, complexes with amino acid derivs. 116-45-0D, Sulfabromomethazine, complexes with amino acid derivs. 118-56-9, Homosalate 118-57-0D, Acetaminosalol, complexes with amino acid derivs. 118-60-5, Octyl salicylate 119-61-9, Benzophenone, biological studies 121-29-9, Pyrethrin 122-11-2D, Sulfadimethoxine, complexes with amino acid derivs. 123-31-9D, Hydroquinone, complexes with amino acid derivs. 123-99-9D, Azelaic acid, complexes with amino acid derivs. 124-43-6, Carbamide peroxide 126-07-8, Griseofulvin 127-47-9, Retinyl acetate 127-71-9D, Sulfabenzamide, complexes with amino acid derivs. 127-77-5D, Sulfabenz, complexes with amino acid derivs. 128-13-2D, Ursodiol, complexes with amino acid derivs. 130-26-7, Clioquinol 131-57-7, Oxybenzone 136-77-6, Hexyl resorcinol 137-58-6, Lidocaine 137-66-6, Ascorbyl palmitate 139-12-8, Aluminum acetate 140-65-8, Pramoxine 144-80-9D, Sulfacetamide, complexes with amino acid derivs. 144-82-1D, Sulfamethizole, complexes with amino acid derivs. 144-83-2D, Sulfapyridine, complexes with amino acid derivs. 150-13-0, PABA 152-47-6D, Sulfalene, complexes with amino acid derivs. 302-79-4D, Retinoic acid, complexes with amino acid derivs. 305-62-4D, 2,4-Diaminobutanoic acid, complexes with acidic drugs 305-62-4D, 2,4-Diaminobutanoic acid, esters, complexes with acidic drugs 331-39-5D, Caffeic acid, complexes with amino acid derivs. 332-80-9D, complexes with acidic drugs 356-12-7, Fluocinonide 382-67-2, Desoximetasone 404-86-4, Capsaicin 443-48-1, Metronidazole 452-95-9D, complexes with acidic drugs 459-73-4D, Ethyl glycinate, complexes with acidic drugs 462-20-4D, 6,8-Dimercaptooctanoic acid, complexes with amino acid derivs. 483-63-6, Crotamiton 486-12-4, Triprolidine 497-76-7D, Arbutin, complexes with amino acid derivs. 501-30-4D, Kojic acid, complexes with amino acid derivs. 515-94-6D, 2,3-Diaminopropanoic acid, complexes with acidic drugs 515-94-6D, 2,3-Diaminopropanoic acid, esters, complexes with acidic drugs 518-28-5, Podofilox 525-66-6, Propranolol 543-38-4D, Canavanine, complexes with acidic drugs 562-10-7, Doxylamine 586-60-7, Dyclonine 598-41-4D, Glycinamide, complexes with acidic drugs 599-79-1D, Sulfasalazine, complexes with amino acid derivs. 616-07-9D, Ornithine, complexes with acidic drugs 616-34-2D, Methyl glycinate, complexes with acidic drugs 632-00-8D, Sulfasomizole, complexes with amino acid derivs. 687-64-9D, Methyl lysinate, complexes with acidic drugs 721-50-6, Prilocaine 723-46-6D, Sulfamethoxazole, complexes with amino acid derivs. 768-94-5, Amantadine 777-11-7, Haloprogin 921-74-4D, complexes with acidic drugs 924-73-2D, Ethyl $\beta$ -alaninate, complexes with acidic drugs 1077-28-7D, Thioctic acid, complexes with amino acid derivs. 1080-06-4D, Methyl tyrosinate, complexes with acidic drugs 1135-24-6D, Ferulic acid, complexes with amino acid derivs. 1143-38-0, Anthralin 1188-07-4D, complexes with acidic drugs 1190-94-9D,  $\delta$ -Hydroxylysine, complexes with acidic drugs 1319-82-0, Aminocaproic acid 1327-41-9, Aluminum chlorohydroxide 1400-61-9, Nystatin 1404-04-2, Neomycin 1405-87-4, Bacitracin 1406-05-9D, Penicillin, complexes with amino acid derivs. 1491-59-4, Oxymetazoline 1499-46-3D, Methyl histidinate, complexes with acidic drugs 1616-99-5D, complexes with acidic drugs 1795-96-6D, complexes with acidic drugs 1946-82-3 2152-44-5, Betamethasone valerate 2216-92-4D, Ethyl phenylglycinate, complexes with acidic drugs 2259-86-1D, complexes with acidic drugs 2398-96-1, Tolnaftate 2447-57-6D, Sulfadoxine, complexes with amino acid derivs. 2481-03-0D, complexes with acidic drugs 2485-62-3D, Methyl cysteinate, complexes with acidic drugs 2524-31-4D, 4-Hydroxyarginine, complexes with acidic drugs 2577-48-2D, Methyl prolinatate, complexes with acidic drugs 2577-90-4D, Methyl phenylalaninate, complexes with acidic drugs 2643-66-5D, 2,3-Diaminobutanoic acid, complexes with acidic drugs

2643-66-5D, 2,3-Diaminobutanoic acid, esters, complexes with acidic drugs  
 2743-60-4D, Ethyl leucinate, complexes with acidic drugs 2788-84-3D,  
 Methyl serinate, complexes with acidic drugs 2812-47-7D, Prolinamide,  
 complexes with acidic drugs 3082-75-5D, Ethyl alaninate, complexes with  
 acidic drugs 3251-07-8D, complexes with acidic drugs 3251-08-9D,  
 complexes with acidic drugs 3373-59-9D, Methyl threoninate, complexes  
 with acidic drugs 3380-34-5, Triclosan 3380-34-5D, Triclosan,  
 complexes with amino acid derivs. 3411-58-3D, Ethyl cysteinate,  
 complexes with acidic drugs 3440-38-8D, complexes with acidic drugs  
 3485-66-3D, complexes with acidic drugs 4070-48-8D, Methyl valinate,  
 complexes with acidic drugs 4138-35-6D, Methyl $\beta$ -alaninate,  
 complexes with acidic drugs 4432-56-8D, complexes with acidic drugs  
 4726-84-5D, Alaninamide, complexes with acidic drugs 4726-85-6D,  
 $\beta$ -Alaninamide, complexes with acidic drugs 4985-46-0D,  
 Tyrosinamide, complexes with acidic drugs 5241-58-7D, Phenylalaninamide,  
 complexes with acidic drugs 5466-77-3, Octyl methoxycinnamate  
 5534-09-8, Beclomethasone dipropionate 5593-20-4, Betamethasone  
 dipropionate 5611-51-8, Triamcinolone hexacetonide 5817-26-5D, Ethyl  
 proline, complexes with acidic drugs 5959-36-4D, complexes with acidic  
 drugs 6169-96-6D, Lysinamide, complexes with acidic drugs 6205-08-9,  
 N-Acetyl ornithine 6384-18-5D, Dimethyl aspartate, complexes with acidic  
 drugs 6525-53-7D, Dimethyl glutamate, complexes with acidic drugs  
 6720-02-1D, Tryptophanamide, complexes with acidic drugs 7303-49-3D,  
 Methyl tryptophanate, complexes with acidic drugs 7446-70-0, Aluminum  
 chloride, biological studies 7479-05-2D, Ethyl tryptophanate, complexes  
 with acidic drugs 7512-17-6, N-Acetyl glucosamine 7621-14-9D,  
 Histidinamide, complexes with acidic drugs 7704-34-9, Sulfur, biological  
 studies 7722-84-1, Hydrogen peroxide, biological studies 8029-68-3,  
 Ichthammol 9012-76-4, Chitosan 10065-72-2D, Methyl  
 alaninate, complexes with acidic drugs 10118-90-8, Minocycline  
 10332-17-9D, Methyl methioninate, complexes with acidic drugs  
 12650-69-0, Mupirocin 13048-65-2D, Propyl glycinate, complexes with  
 acidic drugs 13048-66-3D, Isopropyl glycinate, complexes with acidic  
 drugs 13079-20-4D, Leucinamide, complexes with acidic drugs  
 13463-41-7, Zinc pyrithione 13474-14-1D, Valinamide, complexes with  
 acidic drugs 13552-87-9D, Diethyl aspartate, complexes with acidic drugs  
 13609-67-1, Hydrocortisone 17-butyrate 13893-45-3D, complexes with  
 acidic drugs 14445-54-6D, complexes with acidic drugs 14678-48-9D,  
 complexes with acidic drugs 14838-15-4, Phenylpropanolamine  
 15219-97-3D, Oxalysine, complexes with acidic drugs 15574-69-3D,  
 complexes with acidic drugs 15686-51-8, Clemastine 15687-27-1D,  
 Ibuprofen, complexes with amino acid derivs. 15985-61-2D, Canaline,  
 complexes with acidic drugs 16110-51-3D, Cromolyn, complexes with amino  
 acid derivs. 16377-00-7D, Indospicine, complexes with acidic drugs  
 16395-58-7, N-Acetyl prolinamide 16450-41-2D, Diethyl glutamate,  
 complexes with acidic drugs 16676-91-8D, complexes with acidic drugs  
 16709-23-2D, Argininamide, complexes with acidic drugs 17035-90-4D,  
 complexes with acidic drugs 17088-67-4D, complexes with acidic drugs  
 17784-12-2D, Sulfacytine, complexes with amino acid derivs. 18323-44-9,  
 Clindamycin 18559-94-9, Albuterol 18869-43-7D, complexes with acidic  
 drugs

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)

(topical compns. containing acidic active ingredient complexes with amino  
 acids and their derivs. for improved skin care and treatment of skin  
 conditions)

IT 18869-44-8D, Methyl isoleucinate, complexes with acidic drugs  
 19253-88-4D,  $\epsilon$ -Trimethyl lysine, complexes with acidic drugs  
 19298-72-7D, Methioninamide, complexes with acidic drugs 21245-02-3,  
 Padimate o 21645-51-2, Aluminum hydroxide, biological studies

21969-70-0D, Phenylglycinamide, complexes with acidic drugs 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22560-81-2D, complexes with acidic drugs 22916-47-8, Miconazole 23593-75-1, Clotrimazole 23926-51-4D, complexes with acidic drugs 24317-81-5D, 2,4-Diaminopentanoic acid, complexes with acidic drugs 25122-46-7, Clobetasol propionate 25655-41-8, Povidone iodine 25683-11-8D, complexes with acidic drugs 25739-59-7D, Serinamide, complexes with acidic drugs 25975-47-7D, Diisopropyl glutamate, complexes with acidic drugs 25991-17-7D, Threoninamide, complexes with acidic drugs 26682-99-5D, Methyl phenylglycinate, complexes with acidic drugs 27220-47-9, Econazole 28911-21-9D, complexes with acidic drugs 29259-54-9D, complexes with acidic drugs 30315-93-6D, complexes with acidic drugs 30344-00-4D, complexes with acidic drugs 30418-80-5D, complexes with acidic drugs 34081-17-9D, complexes with acidic drugs 34378-59-1D, complexes with acidic drugs 34994-11-1D, Hypusine, complexes with acidic drugs 38304-91-5, Minoxidil 38396-39-3, Bupivacaine 38570-55-7D, complexes with acidic drugs 39825-36-0D, IsoPropyl  $\beta$ -alaninate, complexes with acidic drugs 39978-33-1D, complexes with acidic drugs 39978-59-1D, complexes with acidic drugs 40846-98-8D, Methyl glutamate, complexes with acidic drugs 43189-09-9D, complexes with acidic drugs 43189-12-4D, complexes with acidic drugs 45012-54-2D, complexes with acidic drugs 45172-24-5D, Dipropyl glutamate, complexes with acidic drugs 51323-74-1D, complexes with acidic drugs 52645-53-1, Permethrin 53517-65-0D, Isopropyl serinate, complexes with acidic drugs 54817-41-3D, Dipropyl aspartate, complexes with acidic drugs 55079-83-9D, Acitretin, complexes with amino acid derivs. 56093-45-9, Selenium sulfide 57524-89-7, Hydrocortisone 17-valerate 59277-89-3, Acyclovir 59574-26-4D, complexes with acidic drugs 61318-90-9, Sulconazole 64211-45-6, Oxiconazole 64872-76-0, Butoconazole 65277-42-1, Ketoconazole 65472-88-0, Naftifine 65899-73-2, Tioconazole 66734-13-2, Aclovate 67648-90-2D, complexes with acidic drugs 67915-31-5, Terconazole 72151-95-2D, complexes with acidic drugs 72173-16-1D, complexes with acidic drugs 78088-29-6D, complexes with acidic drugs 79487-90-4D, complexes with acidic drugs 79487-91-5D, complexes with acidic drugs 80573-35-9D, complexes with acidic drugs 80585-03-1D, complexes with acidic drugs 81084-75-5D, complexes with acidic drugs 81084-79-9D, complexes with acidic drugs 81084-81-3D, complexes with acidic drugs 81084-82-4D, complexes with acidic drugs 81084-84-6D, complexes with acidic drugs 81084-85-7D, complexes with acidic drugs 81084-86-8D, complexes with acidic drugs 81084-87-9D, complexes with acidic drugs 82834-16-0D, Perindopril, complexes with amino acid derivs. 84505-81-7D, complexes with acidic drugs 85721-33-1D, Ciprofloxacin, complexes with amino acid derivs. 87848-99-5D, Acrivastine, complexes with amino acid derivs. 89282-87-1D, complexes with acidic drugs 90484-89-2D, complexes with acidic drugs 91161-71-6, Terbinafine 94032-11-8D, Cystinamide, complexes with acidic drugs 94359-76-9D, complexes with acidic drugs 94359-80-5D, complexes with acidic drugs 99011-02-6, Imiquimod 101912-60-1D, complexes with acidic drugs 105462-24-6D, Risedronic acid, complexes with amino acid derivs. 106685-40-9, Adapalene 111278-90-1D, complexes with acidic drugs 112229-23-9D, complexes with acidic drugs 112965-21-6, Calcipotriene 114260-57-0D, complexes with acidic drugs 114346-54-2D, complexes with acidic drugs 117976-89-3D, Rabeprazole, complexes with amino acid derivs. 118292-40-3, Tazarotene 119991-47-8D, complexes with acidic drugs 125511-25-3D, complexes with acidic drugs 125511-26-4D, complexes with acidic drugs 125511-28-6D, complexes with acidic drugs 125511-31-1D, complexes with acidic drugs 125511-32-2D, complexes with acidic drugs 125511-33-3D, complexes with acidic drugs 125511-34-4D, complexes with acidic drugs 125511-35-5D, complexes with acidic drugs 125511-37-7D, complexes with acidic drugs 125511-38-8D,

complexes with acidic drugs 131530-16-0D, complexes with acidic drugs 132261-28-0D, complexes with acidic drugs 133509-58-7D, complexes with acidic drugs 134699-10-8D, complexes with acidic drugs 145613-45-2D, complexes with acidic drugs 151779-48-5D, complexes with acidic drugs 220195-51-7D, complexes with acidic drugs 243473-10-1D, complexes with acidic drugs 536753-89-6D, complexes with acidic drugs 764724-17-6D, complexes with acidic drugs 764724-18-7D, complexes with acidic drugs 764724-19-8D, complexes with acidic drugs 764724-20-1D, complexes with acidic drugs 764724-21-2D, complexes with acidic drugs 764724-22-3D, complexes with acidic drugs 764724-23-4D, complexes with acidic drugs 764724-24-5D, complexes with acidic drugs 764724-25-6D, complexes with acidic drugs 764724-26-7D, complexes with acidic drugs 764724-27-8D, complexes with acidic drugs 764724-28-9D, complexes with acidic drugs 764724-29-0D, complexes with acidic drugs 764724-30-3D, complexes with acidic drugs 764724-31-4D, complexes with acidic drugs 764724-32-5D, complexes with acidic drugs 764724-33-6D, complexes with acidic drugs 764724-34-7D, complexes with acidic drugs 764724-35-8D, complexes with acidic drugs 764724-36-9D, complexes with acidic drugs 764724-37-0D, complexes with acidic drugs 764724-38-1D, complexes with acidic drugs 764724-39-2D, complexes with acidic drugs 764724-40-5D, complexes with acidic drugs 764724-41-6D, complexes with acidic drugs 764724-42-7D, complexes with acidic drugs 764724-43-8D, complexes with acidic drugs 764724-44-9D, complexes with acidic drugs 764724-45-0D, complexes with acidic drugs 764724-46-1D, complexes with acidic drugs

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(topical compns. containing acidic active ingredient complexes with amino acids and their derivs. for improved skin care and treatment of skin conditions)

IT 59-05-2P, Methotrexate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(topical compns. containing acidic active ingredient complexes with amino acids and their derivs. for improved skin care and treatment of skin conditions)

L4 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:589443 CAPLUS

DOCUMENT NUMBER: 141:145752

TITLE: Tissue reactive polymer compounds and compositions for drug delivery

INVENTOR(S): Takacs-Cox, Aniko; Toleikis, Philip M.; Maiti, Arpita; Embree, Leanne

PATENT ASSIGNEE(S): Angiotech International G.m.b.H., Switz.; Gravett, David M.

SOURCE: PCT Int. Appl., 189 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004060405	A2	20040722	WO 2003-US41576	20031230
WO 2004060405	A8	20040930		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,

OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2511486	A1	20040722	CA 2003-2511486	20031230
AU 2003303513	A1	20040729	AU 2003-303513	20031230
US 2004219214	A1	20041104	US 2003-749123	20031230
EP 1583561	A2	20051012	EP 2003-808608	20031230
EP 1583561	A3	20051207		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1756571	A	20060405	CN 2003-80110068	20031230
JP 2006519766	T	20060831	JP 2005-508639	20031230

PRIORITY APPLN. INFO.:		US 2002-437384P	P	20021230
		US 2003-440924P	P	20030117
		WO 2003-US41576	W	20031230

AB A composition comprising a synthetic polymer that contains multiple activated groups, and optionally a drug, and method of using such compns. in medical as well in device applications is described. The multiple activated groups are reactive with functionality present on animal tissue, so that upon administration of the polymer to the tissue, the polymer binds to the tissue. Alternatively, the multiple activated groups are reactive with functionality present on a non-living surface, such as the surface of a medical device, where the polymer binds to this surface to, e.g., increase the lubricity of the surface. When drug is present in the composition, the drug is then delivered to the site of polymer attachment. For example, a piece of catheter tubing was dipped into a 1% chitosan solution, allowed to incubate for 10 min, and air dried to obtain a base coat. The chitosan-coated catheter was then immersed into a freshly prepared 10% solution (pH about 8) of tetra functional poly(ethylene glycol) succinimidyl glutarate (4-arm-NHS-PEG) for 5 min. The tubing was removed, rinsed with water and dried.

AB . . . then delivered to the site of polymer attachment. For example, a piece of catheter tubing was dipped into a 1% chitosan solution, allowed to incubate for 10 min, and air dried to obtain a base coat. The chitosan-coated catheter was then immersed into a freshly prepared 10% solution (pH about 8) of tetra functional poly(ethylene glycol) succinimidyl glutarate. . .

IT Alkylating agents, biological  
 Angiogenesis inhibitors  
 Animal tissue  
 Antihistamines  
 Buffers  
 Coating materials  
 Contact lenses  
 Cytotoxic agents  
Fungicides  
 Immunomodulators  
 Leukotriene antagonists  
 Micelles  
 Oviduct

(preparation and biomedical uses of surface-reactive polymers containing multiple activated groups)

IT Polymers, biological studies  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (reactive-group containing; preparation and biomedical uses of surface-reactive

polymers containing multiple activated groups)

IT 9002-98-6, Polyethylenimine 9012-76-4, Chitosan  
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (base coat; preparation and biomedical uses of surface-reactive polymers containing multiple activated groups)

IT 197389-42-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and biomedical uses of surface-reactive polymers containing multiple activated groups)

IT 6162-69-2P 6162-70-5P 9045-69-6P 25322-68-3DP, thiol derivs.  
 60182-11-8DP, thiol derivs. 76931-93-6DP, ethoxylated derivs.  
 111600-41-0P 199915-32-7P 228716-21-0P 302781-03-9P 327155-92-0P  
 357277-62-4P 693252-88-9P 693815-29-1P 724786-23-6P 724786-24-7P  
 724786-25-8P 724786-26-9P 724786-27-0P 724786-28-1P 724786-29-2P  
 724786-30-5P 724786-31-6P 724786-32-7P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation and biomedical uses of surface-reactive polymers containing multiple activated groups)

L4 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:836761 CAPLUS  
 DOCUMENT NUMBER: 139:328325  
 TITLE: Chitosan production from chitin-containing materials  
 INVENTOR(S): Trinkle, James R.; Fan, Weiyu; Hwang, Ki-oh  
 PATENT ASSIGNEE(S): Cargill, Inc., USA  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086281	A2	20031023	WO 2003-US10560	20030402
WO 2003086281	A3	20040219		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2481006	A1	20031023	CA 2003-2481006	20030402
AU 2003221828	A1	20031027	AU 2003-221828	20030402
BR 2003003666	A	20040727	BR 2003-3666	20030402
EP 1497335	A2	20050119	EP 2003-718228	20030402
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005215774	A1	20050929	US 2004-509570	20040929
PRIORITY APPLN. INFO.:			US 2002-369594P	P 20020402
			WO 2003-US10560	W 20030402

AB The invention provides a method of producing chitosan using

pressures greater than 0 PSIG. The invention also provides funga  
chitosan compns. A dry matter of Aspergillus niger mycelium was  
mixed with an aqueous solution of NaOH and the mixture was heated to 110° to  
obtain chitosan.

TI Chitosan production from chitin-containing materials

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chitosan compns. A dry matter of Aspergillus niger mycelium was  
mixed with an aqueous solution of NaOH and the mixture was heated to 110° to  
obtain chitosan.

ST chitosan fermn Aspergillus deacetylation

IT Aspergillus niger

Deacetylation

Fermentation

(chitosan production from chitin-containing materials)

IT 9012-76-4P, Chitosan

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL

(Biological study); PREP (Preparation); USES (Uses)

(chitosan production from chitin-containing materials)

IT 1310-73-2, Sodium hydroxide, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(chitosan production from chitin-containing materials)

L4 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:656811 CAPLUS

DOCUMENT NUMBER: 139:199009

TITLE: Cell wall derivatives from biomass and preparation  
thereof

INVENTOR(S): Versali, Marie-France; Clerisse, Fabienne; Bruyere,  
Jean-Michel; Gautier, Sandrine

PATENT ASSIGNEE(S): Kitozyme S.A., Belg.

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068824	A1	20030821	WO 2003-EP1375	20030212
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
BE 1014638	A6	20040203	BE 2002-93	20020212
CA 2475258	A1	20030821	CA 2003-2475258	20030212
AU 2003215555	A1	20030904	AU 2003-215555	20030212
EP 1483299	A1	20041208	EP 2003-739480	20030212
EP 1483299	B1	20060816		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1642986	A	20050720	CN 2003-805947	20030212



JP 2005529191	T	20050929	JP 2003-567950	20030212
AT 336516	T	20060915	AT 2003-739480	20030212
ES 2271605	T3	20070416	ES 2003-739480	20030212
IN 2004MN00415	A	20060106	IN 2004-MN415	20040730
US 2005130273	A1	20050616	US 2005-504046	20050128
PRIORITY APPLN. INFO.:			BE 2002-93	A 20020212
			WO 2003-EP1375	W 20030212

AB In a first aspect, the present invention relates to a method for isolating cell wall derivs. from fungal (e.g. *Aspergillus niger* mycelium) or yeast biomass. According to this method, chitin polymers or chitin-glucan copolymers can be obtained. In another aspect, the invention relates to a method for preparing chitosan from chitin. The invention further relates to chitin polymers, chitin-glucan polymers and chitosan polymers obtainable by the methods according to the invention. Moreover, the invention relates to the use of chitin polymers, chitin-glucan copolymers or chitosan polymers obtainable by the method according to the present invention in medical, pharmaceutical, agricultural, nutraceutical, food, textile, cosmetic, industrial and/or environmental applications. ratio was calculated to be 41:59 (weight/weight).

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB In a first aspect, the present invention relates to a method for isolating cell wall derivs. from fungal (e.g. *Aspergillus niger* mycelium) or yeast biomass. According to this method, chitin polymers or chitin-glucan copolymers can be obtained. In another aspect, the invention relates to a method for preparing chitosan from chitin. The invention further relates to chitin polymers, chitin-glucan polymers and chitosan polymers obtainable by the methods according to the invention. Moreover, the invention relates to the use of chitin polymers, chitin-glucan copolymers or chitosan polymers obtainable by the method according to the present invention in medical, pharmaceutical, agricultural, nutraceutical, food, textile, cosmetic, industrial and/or.

ST fungus yeast biomass cell wall chitosan glucan  
isolation

IT Ascomycota  
*Aspergillus niger*  
Basidiomycota  
Biomass  
Fermentation  
Fungi imperfecti  
Zygomycetes  
(cell wall chitin and glucan from fungal or yeast biomass and chemical or enzymic method for their preparation)

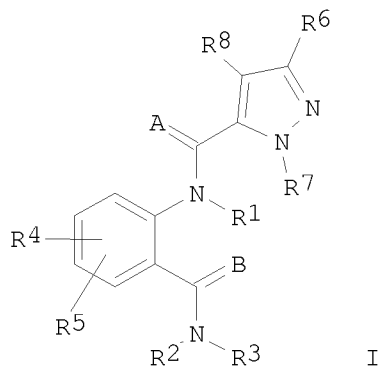
IT 9074-98-0,  $\beta$ -Glucanase 56379-60-3, Chitin deacetylase  
RL: CAT (Catalyst use); USES (Uses)  
(cell wall chitin and glucan from fungal or yeast biomass and chemical or enzymic method for their preparation)

IT 1398-61-4P, Chitin 9012-76-4P, Chitosan 70694-72-3P, Chitosan chloride 287935-68-6P, Chitin-glucan copolymer  
RL: PUR (Purification or recovery); PREP (Preparation)  
(cell wall chitin and glucan from fungal or yeast biomass and chemical or enzymic method for their preparation)

IT 1310-73-2, Sodium hydroxide, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(extractant; cell wall chitin and glucan from fungal or yeast biomass and chemical or enzymic method for their preparation)

DOCUMENT NUMBER: 138:267201  
 TITLE: Pesticidal compositions for coating plant propagation material containing anthranilamides  
 INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 147 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024222	A1	20030327	WO 2002-US30302	20020910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2458163	A1	20030327	CA 2002-2458163	20020910
AU 2002341819	B9	20030401	AU 2002-341819	20020910
AU 2002341819	A1	20030401		
AU 2002341819	B2	20070719		
EP 1427285	A1	20040616	EP 2002-775972	20020910
EP 1427285	B1	20070822		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002012993	A	20040817	BR 2002-12993	20020910
JP 2005502716	T	20050127	JP 2003-528126	20020910
JP 3770495	B2	20060426		
HU 2004001893	A2	20050128	HU 2004-1893	20020910
HU 2004001893	A3	20051128		
NZ 532269	A	20051028	NZ 2002-532269	20020910
CN 1713819	A	20051228	CN 2002-818578	20020910
RU 2292138	C2	20070127	RU 2004-111986	20020910
AT 370656	T	20070915	AT 2002-775972	20020910
ZA 2004000413	A	20050120	ZA 2004-413	20040120
US 2004209923	A1	20041021	US 2004-485125	20040126
IN 2004MN00090	A	20070706	IN 2004-MN90	20040205
MX 2004PA02648	A	20040607	MX 2004-PA2648	20040319
KR 783260	B1	20071206	KR 2004-704134	20040320
IN 2005MN00443	A	20050930	IN 2005-MN443	20050517
PRIORITY APPLN. INFO.:			US 2001-323941P	P 20010921
			WO 2002-US30302	W 20020910
OTHER SOURCE(S):	MARPAT 138:267201			
GI				



AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable. . .

IT Eubacteria

Fungi

Virus

(entomopathogenic; in pesticidal compns. for plant propagation material containing anthranilamides)

IT Adhesives

Bacillus thuringiensis aizawai

Bacillus thuringiensis kurstaki

Baculoviridae

Coating materials

Fungicides

GABA antagonists

Gums and Mucilages

Latex

Sodium channel blockers

(in pesticidal compns. for plant propagation material containing anthranilamides)

IT 52-68-6 56-38-2 57-13-6D, Urea, derivs. 60-51-5, Dimethoate  
72-43-5 76-87-9, Fentin hydroxide 83-79-4 86-50-0,  
Azinphos-methyl 99-30-9, Dicloran 108-62-3 115-29-7 115-32-2  
116-06-3 121-75-5 133-06-2, Captan 133-07-3, Folpet 137-26-8,  
Thiram 148-79-8, Thiabendazole 298-00-0 298-02-2 333-41-5,  
Diazinon 510-15-6 732-11-6 900-95-8, Fentin acetate 944-22-9  
950-37-8 1332-40-7, Copper oxychloride 1563-66-2, Carbofuran

1897-45-6, Chlorothalonil 2079-00-7, Blasticidin-S 2227-17-0  
 2310-17-0 2312-35-8 2425-06-1, Captafol 2439-01-2 2439-10-3,  
 Dodine 2675-77-6, Chloroneb 2921-88-2, Chlorpyrifos 5598-13-0,  
 Chlorpyrifos-methyl 6585-53-1, Ferric methanearsonate 6923-22-4  
 6980-18-3, Kasugamycin 7440-50-8D, Copper, salts 7704-34-9, Sulfur,  
 biological studies 8011-63-0, Bordeaux mixture 8018-01-7, Mancozeb  
 10265-92-6 10605-21-7, Carbendazim 11141-17-6, Azadirachtin  
 12427-38-2, Maneb 13071-79-9 13121-70-5 13171-21-6 13356-08-6  
 16752-77-5 17109-49-8, Edifenphos 17804-35-2, Benomyl 22224-92-6  
 22248-79-9 23103-98-2 23135-22-0 23564-05-8, Thiophanate-methyl  
 24579-73-5, Propamocarb 25311-71-1 26087-47-8, Iprobenfos  
 27605-76-1, Probenazole 30560-19-1, Acephate 33089-61-1 35367-38-5,  
 Diflubenzuron 35400-43-2 36734-19-7, Iprodione 39148-24-8,  
 Fosetylaluminum 39515-41-8 40596-69-8 41198-08-7 41814-78-2,  
 Tricyclazole 43121-43-3, Triadimefon 50471-44-8, Vinclozolin  
 50512-35-1, Isoprothiolane 50642-14-3, Validamycin 51630-58-1  
 52207-48-4 52315-07-8, Cypermethrin 52645-53-1 52918-63-5,  
 Deltamethrin 53112-28-0, Pyrimethanil 55219-65-3, Triadimenol  
 55814-41-0, Mepronil 57369-32-1, Pyroquilon 57646-30-7, Furalaxyl  
 57837-19-1, Metalaxyl 57966-95-7, Cymoxanil 58842-20-9 59669-26-0  
 60168-88-9, Fenarimol 60207-90-1, Propiconazole 62850-32-2  
 62865-36-5, Diclomezine 63837-33-2, Diofenolan 64628-44-0  
 66063-05-6, Pencycuron 66215-27-8, Cyromazine 66230-04-4 66246-88-6,  
 Penconazole 66332-96-5, Flutolanil 66841-25-6 67306-00-7,  
 Fenpropidin 67564-91-4, Fenpropimorph 67747-09-5, Prochloraz  
 68085-85-8, Cyhalothrin 68359-37-5, Cyfluthrin 69327-76-0, Buprofezin  
 70124-77-5 70630-17-0, Mefenoxam 71422-67-8, Chlorfluazuron  
 71751-41-2, Abamectin 72490-01-8 73989-17-0, Avermectin 74738-17-3,  
 Fenpiclonil 76674-21-0, Flutriafol 77732-09-3, Oxadixyl 78587-05-0  
 79538-32-2 79622-59-6, Fluazinam 79983-71-4, Hexaconazole  
 80060-09-9, Diafenthiuron 82657-04-3, Bifenthrin 83121-18-0  
 83657-18-5, Diniconazole-M 83657-24-3, Diniconazole 84466-05-7,  
 Amidoflumet 85509-19-9, Flusilazole 86479-06-3 88283-41-4, PyrifenoX  
 88671-89-0, Myclobutanil 91465-08-6 94361-06-5, Cyproconazole  
 95737-68-1 96489-71-3 101463-69-8 102851-06-9 103055-07-8  
 104030-54-8, Carpropamid 107534-96-3, Tebuconazole 110488-70-5,  
 Dimethomorph 111988-49-9 112226-61-6 112281-77-3, Tetraconazole  
 112410-23-8 114369-43-6, Fenbuconazole 116255-48-2, Bromuconazole  
 116714-46-6 118134-30-8, Spiroxamine 119168-77-3 119446-68-3,  
 Difenoconazole 119791-41-2, Enamectin 120068-37-3 120928-09-8  
 121451-02-3 121552-61-2, Cyprodinil 122453-73-0, Chlorfenapyr  
 123312-89-0 123572-88-3, Furametpyr 124495-18-7, Quinoxifen  
 125116-23-6, Metconazole 125225-28-7, Ipconazole 126448-41-7,  
 Acibenzolar 130000-40-7, Thifluzamide 131341-86-1, Fludioxonil  
 131807-57-3, Famoxadone 131860-33-8, Azoxystrobin 131983-72-7,  
 Triticonazole 133408-50-1, Metominostrobin 133855-98-8, Epoxiconazole  
 134098-61-6 135410-20-7, Acetamiprid 136426-54-5, Fluquinconazole  
 138261-41-3 139920-32-4, Diclocymet 140923-17-7, SZX0722  
 141517-21-7, Trifloxystrobin 143390-89-0, Kresoxim-methyl 143807-66-3,  
 Chromafenozide 149877-41-8, Bifenazate 149961-52-4, Dimoxystrobin  
 153233-91-1 153719-23-4 154025-04-4, Flumetover 156052-68-5, RH 7281  
 158062-67-0 161050-58-4 161326-34-7 168316-95-8, Spinosad  
 170015-32-4 173584-44-6 175013-18-0, Pyraclostrobin 178928-70-6,  
 Prothioconazole 179101-81-6 180409-60-3, Cyflufenamid 181587-01-9  
 188425-85-6, Nicobifen 189278-12-4, Proquinazid 210880-92-5,  
 Clothianidin 211867-47-9, SYP-L190 220899-03-6, Metrafenone  
 223580-51-6, Tiadinil 248593-16-0, Orysastrobin 283594-90-1  
 361377-29-9, Fluoxastrobin

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
 (Biological study); USES (Uses)

(in pesticidal compns. for plant propagation material containing anthranilamides)

IT 75-35-4D, Vinylidene chloride, polymers and copolymers 79-41-4D, Methylacrylic acid, imide derivs. 79-41-4D, Acrylimide, polymers and copolymers, imide derivs. 8062-15-5, Lignosulfonate 9000-01-5, Gum arabic 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-65-1, Tragacanth gum 9002-89-5 9002-89-5D, Polyvinyl alcohol, copolymers 9003-09-2, Polyvinyl methyl ether 9003-20-7D, Polyvinyl acetate, derivs., copolymers 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethylcellulose 9004-34-6D, Cellulose, derivs. 9004-53-9, Dextrins 9004-57-3, Ethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-67-5D, Methylcellulose, derivs. 9005-25-8D, Starch, derivs. 9005-32-7, Alginic acid 9010-98-4, Polychloroprene 9011-16-9 9012-76-4, Chitosan 9050-36-6, Malto-dextrin 25086-89-9 25322-68-3, Polyethylene oxide 26022-14-0, Polyhydroxyethyl acrylate 30811-69-9, Polyvinylacrylate 37353-59-6D, Hydroxymethylcellulose, derivs. 69670-80-0, Hydroxymethylpropylcellulose

RL: AGR (Agricultural use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(in pesticidal compns. for plant propagation material containing anthranilamides)

IT 362637-53-4P 362637-70-5P 362638-30-0P 362639-62-1P 438450-41-0P, N-[4-Chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide 500008-00-4P 500008-44-6P 500008-45-7P 500008-60-6P 500008-62-8P 500010-10-6P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of anthranilamide compds. as pesticides for plant propagation material)

IT 129585-50-8P

RL: BYP (Byproduct); SPN (Synthetic preparation); PREP (Preparation)

(preparation of anthranilamide compds. as pesticides for plant propagation material)

IT 74-89-5, Methylamine, reactions 75-03-6, Iodoethane 75-31-0, Isopropylamine, reactions 76-05-1, Trifluoroacetic acid, reactions 79-37-8, Oxalyl chloride 98-59-9, p-Toluenesulfonyl chloride 100-63-0, Phenylhydrazine 109-72-8, n-Butyllithium, reactions 112-02-7, Cetyltrimethylammonium chloride 121-44-8, Triethylamine, reactions 124-63-0, Methanesulfonyl chloride 128-09-6, N-Chlorosuccinimide 367-57-7 421-50-1, 1,1,1-Trifluoroacetone 503-38-8, Trichloromethyl chloroformate 541-41-3, Ethyl chloroformate 584-08-7, Potassium carbonate 630-25-1, 1,2-Dibromotetrachloroethane 1310-58-3, Potassium hydroxide, reactions 2402-77-9, 2,3-Dichloropyridine 4111-54-0, Lithium diisopropylamide 4389-45-1, 2-Amino-3-methylbenzoic acid 4755-77-5, Ethyl chlorooxoacetate 5437-38-7, 3-Methyl-2-nitrobenzoic acid 6226-25-1, 2,2,2-Trifluoroethyl trifluoromethanesulfonate 7087-68-5, N,N-Diisopropylethylamine 7664-93-9, Sulfuric acid, reactions 7789-69-7, Phosphorus pentabromide 10025-87-3, Phosphorus oxychloride 10035-10-6, Hydrogen bromide, reactions 14521-80-3, 3-Bromopyrazole 20154-03-4, 3-Trifluoromethylpyrazole 22206-57-1, Tetrabutylammonium fluoride hydrate 22841-92-5 65753-47-1, 2-Chloro-3-trifluoromethylpyridine 66176-17-8, 3-Methylisatoic anhydride 133228-21-4 458543-79-8 499790-43-1 500011-81-4 500011-88-1 500011-94-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of anthranilamide compds. as pesticides for plant propagation material)

IT 14339-33-4P, 3-Chloropyrazole 20776-67-4P, 2-Amino-3-methyl-5-

chlorobenzoic acid 68289-10-1P, 2-Amino-3-methyl-N-(1-methylethyl)benzamide 120374-68-7P 128694-66-6P 362640-53-7P, 3-Methyl-N-(1-methylethyl)-2-nitrobenzamide 362640-58-2P 362640-59-3P 362640-60-6P 362640-61-7P 362640-62-8P 438450-38-5P, 3-Chloro-2-[3-(trifluoromethyl)-1H-pyrazol-1-yl]pyridine 438450-39-6P 438450-40-9P, 6-Chloro-2-[1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-8-methyl-4H-3,1-benzoxazin-4-one 458543-77-6P 458543-78-7P 499790-45-3P 499790-46-4P 500011-82-5P 500011-83-6P 500011-84-7P 500011-85-8P 500011-86-9P 500011-87-0P 500011-89-2P 500011-90-5P 500011-91-6P 500011-92-7P 500011-95-0P 500011-96-1P 500011-97-2P 500011-98-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of anthranilamide compds. as pesticides for plant propagation material)

L4 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:693384 CAPLUS

DOCUMENT NUMBER: 135:243979

TITLE: Chitosan and preparing chitosan from microbial biomass

INVENTOR(S): Fan, Weiyu; Bohlmann, John A.; Trinkle, James R.; Steinke, James D.; Hwang, Ki-Oh; Henning, Joseph P.

PATENT ASSIGNEE(S): Cargill, Incorporated, USA

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068714	A1	20010920	WO 2000-US20173	20000725
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2313836	A1	20010915	CA 2000-2313836	20000711
BR 2000003114	A	20011204	BR 2000-3114	20000724
EP 1272528	A1	20030108	EP 2000-953667	20000725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
US 2002025945	A1	20020228	US 2000-739406	20001218
US 6972284	B2	20051206		
MX 2002PA09042	A	20030425	MX 2002-PA9042	20020913
US 2005245482	A1	20051103	US 2005-153801	20050615
PRIORITY APPLN. INFO.:			US 2000-189560P	P 20000315
			WO 2000-US20173	W 20000725
			US 2000-739406	A3 20001218

AB Highly deacetylated (>85%) chitosan is made by providing chitin-containing biomass (especially fungal biomass); reacting the chitin-containing biomass in a caustic solution of >25% alkali at >95° for ≥10 h to convert the chitin in the biomass to chitosan; and separating the chitosan from the

caustic solution A pre-treating step may be used in which microbial biomass is heated in a less alkaline solution prior to reacting with more alkaline solution

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Chitosan and preparing chitosan from microbial biomass  
AB Highly deacetylated (>85%) chitosan is made by providing chitin-containing biomass (especially fungus biomass); reacting the chitin-containing biomass in a caustic solution of >25% alkali at >95° for ≥10 h to convert the chitin in the biomass to chitosan; and separating the chitosan from the caustic solution A pre-treating step may be used in which microbial biomass is heated in a less alkaline solution prior to. . .  
ST biomass alkali treatment chitosan manuf  
IT Biomass  
(containing chitin; chitosan and preparing chitosan from microbial biomass)  
IT Deacetylation  
(of chitin-containing biomass for chitosan)  
IT 9012-76-4P, Chitosan  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(chitosan and preparing chitosan from microbial biomass)  
IT 1310-73-2, Sodium hydroxide, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(chitosan and preparing chitosan from microbial biomass)  
IT 1398-61-4, Chitin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(chitosan and preparing chitosan from microbial biomass)

L4 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:545525 CAPLUS

DOCUMENT NUMBER: 135:157672

TITLE: Cyclic peptide compositions for nasal administration

INVENTOR(S): Horii, Ikuo; Kobayashi, Kazuko; Shimma, Nobuo; Yanagawa, Akira

PATENT ASSIGNEE(S): Basilea Pharmaceutica A.-G., Switz.

SOURCE: PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2001052894	A2	20010726	WO 2001-EP163	20010109
WO 2001052894	A3	20020131		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2396381	A1	20010726	CA 2001-2396381	20010109

EP 1251827	A2	20021030	EP 2001-909587	20010109
EP 1251827	B1	20040526		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001007764	A	20021112	BR 2001-7764	20010109
JP 2003535042	T	20031125	JP 2001-552941	20010109
AT 267582	T	20040615	AT 2001-909587	20010109
ES 2220724	T3	20041216	ES 2001-909587	20010109
US 2001038824	A1	20011108	US 2001-765846	20010119
ZA 2002005240	A	20030929	ZA 2002-5240	20020628
MX 2002PA07052	A	20021213	MX 2002-PA7052	20020718
PRIORITY APPLN. INFO.:			EP 2000-101057	A 20000120
			WO 2001-EP163	W 20010109

OTHER SOURCE(S): MARPAT 135:157672

AB The present invention relates to a nasal composition of physiolo. active cyclic peptides and salts that are prepared by homogeneously dispersing an active cyclic peptide such as antifungal cyclic peptides (aerothricin, echinocandin analogs, pneumocandin analogs, and aureobasidin), antibacterial cyclic peptides (e.g., vancomycin, daptomycin), cyclosporin A, lanreotide, vapreotide, vasopressin antagonist and eptifibatide in a unique carrier. The powdery or crystalline carrier contains a water insol. polyvalent metal carrier, or organic carrier having a mean particle size of 20-500  $\mu\text{m}$ , in the presence or absence of an absorption enhancer and by homogeneously adsorbing onto the carrier, and its use for therapeutic treatment of disease such as systemic fungal infections by intranasal administration. The composition can be nasally administered in a powder form. Thus, 201 mg Aerothricin 133 and 599 mg  $\text{CaCO}_3$  (mean particle size: 40-60  $\mu\text{m}$ ) were mixed well. Then, 200  $\mu\text{L}$  water was added, and mixing was continued until the mixture became a paste and the resulting pasty solid was freeze-dried at  $-50^\circ$ , and further dried at  $300^\circ$  for 3 h in vacuo. After large particles in the dry powder were broken into small particles, 8 mg of calcium stearate was added and the mixture was passed through 180- $\mu\text{m}$ -mesh. Aerothricin 133 was synthesized by a series of steps.

AB . . . absorption enhancer and by homogeneously adsorbing onto the carrier, and its use for therapeutic treatment of disease such as systemic fungal infections by intranasal administration. The composition can be nasally administered in a powder form. Thus, 201 mg Aerothricin 133 and.

IT Peptides, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cyclic; preparation of cyclic peptide compns. for nasal administration)

IT Barley

Buckwheat (*Fagopyrum esculentum*)

Corn

Fungicides

Millet

Particle size distribution

Permeation enhancers

Rice (*Oryza sativa*)

Soybean (*Glycine max*)

Wheat

(preparation of cyclic peptide compns. for nasal administration)

IT 21645-51-2, Aluminum hydroxide, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(gels; preparation of cyclic peptide compns. for nasal administration)

IT 256945-80-9P, Aerothricin 4 256945-81-0P, Aerothricin 5 256945-82-1P, Aerothricin 6 256945-83-2P, Aerothricin 7 256945-84-3P, Aerothricin 8 256945-85-4P, Aerothricin 9 256945-86-5P, Aerothricin 10 256945-87-6P,



Aerothricin 11 256945-88-7P, Aerothricin 12 256945-89-8P, Aerothricin  
 13 256945-90-1P, Aerothricin 14 256945-91-2P, Aerothricin 15  
 256945-92-3P, Aerothricin 16 256945-93-4P, Aerothricin 17  
 256945-94-5P, Aerothricin 18 256945-95-6P, Aerothricin 19  
 256945-96-7P, Aerothricin 20 256945-97-8P, Aerothricin 21  
 256945-98-9P, Aerothricin 22 256945-99-0P, Aerothricin 23  
 256946-00-6P, Aerothricin 24 256946-01-7P, Aerothricin 25  
 256946-02-8P, Aerothricin 26 256946-03-9P, Aerothricin 27  
 256946-04-0P, Aerothricin 28 256946-05-1P, Aerothricin 29  
 256946-06-2P, Aerothricin 30 256946-07-3P, Aerothricin 31  
 256946-08-4P, Aerothricin 32 256946-09-5P, Aerothricin 33  
 256946-10-8P, Aerothricin 34 256946-11-9P, Aerothricin 35  
 256946-12-0P, Aerothricin 36 256946-13-1P, Aerothricin 37  
 256946-14-2P, Aerothricin 38 256946-15-3P, Aerothricin 39  
 256946-16-4P, Aerothricin 40 256946-17-5P, Aerothricin 41  
 256946-18-6P, Aerothricin 42 256946-19-7P, Aerothricin 43  
 256946-20-0P, Aerothricin 44 256946-21-1P, Aerothricin 45  
 256946-23-3P, Aerothricin 46 256946-25-5P, Aerothricin 47  
 256946-26-6P, Aerothricin 48 256946-27-7P, Aerothricin 49  
 256946-29-9P, Aerothricin 50 256946-30-2P, Aerothricin 51  
 256946-32-4P, Aerothricin 52 256946-33-5P, Aerothricin 53  
 256946-34-6P, Aerothricin 54 256946-36-8P, Aerothricin 55  
 256946-37-9P, Aerothricin 56 256946-38-0P, Aerothricin 57  
 256946-39-1P, Aerothricin 58 256946-40-4P, Aerothricin 59  
 256946-41-5P, Aerothricin 60 256946-42-6P, Aerothricin 61  
 256946-43-7P, Aerothricin 62 256946-44-8P, Aerothricin 63  
 256946-45-9P, Aerothricin 64 256946-46-0P, Aerothricin 65  
 256946-47-1P, Aerothricin 66 256946-48-2P, Aerothricin 67  
 256946-49-3P, Aerothricin 68 256946-50-6P, Aerothricin 69  
 256946-51-7P, Aerothricin 70 256946-52-8P, Aerothricin 71  
 256946-53-9P, Aerothricin 72 256946-54-0P, Aerothricin 73  
 256946-55-1P, Aerothricin 74 256946-56-2P, Aerothricin 75  
 256946-57-3P, Aerothricin 76 256946-58-4P, Aerothricin 77  
 256946-59-5P, Aerothricin 78 256946-60-8P, Aerothricin 79  
 256946-61-9P, Aerothricin 80 256946-62-0P, Aerothricin 81  
 256946-63-1P, Aerothricin 89 256946-64-2P, Aerothricin 90  
 256946-65-3P, Aerothricin 91 256946-66-4P, Aerothricin 92  
 256946-67-5P, Aerothricin 93 256946-68-6P, Aerothricin 94  
 256946-69-7P, Aerothricin 95 256946-70-0P, Aerothricin 96  
 256946-71-1P, Aerothricin 97 256946-72-2P, Aerothricin 98  
 256946-73-3P, Aerothricin 99 256946-74-4P, Aerothricin 100  
 256946-75-5P, Aerothricin 101 256946-76-6P, Aerothricin 102  
 256946-77-7P, Aerothricin 103 256946-78-8P, Aerothricin 104  
 256946-79-9P, Aerothricin 105 256946-80-2P, Aerothricin 106  
 256946-81-3P, Aerothricin 107 256946-82-4P, Aerothricin 109  
 256946-83-5P, Aerothricin 110 256946-84-6P, Aerothricin 111  
 256946-85-7P, Aerothricin 112 256946-86-8P, Aerothricin 113  
 256946-87-9P, Aerothricin 114 256946-88-0P, Aerothricin 115  
 256946-89-1P, Aerothricin 116 256946-90-4P, Aerothricin 117  
 256946-91-5P, Aerothricin 118 256946-92-6P, Aerothricin 119  
 256946-93-7P 256946-94-8P, Aerothricin 121 256946-95-9P, Aerothricin  
 122 256946-96-0P, Aerothricin 123 256946-97-1P, Aerothricin 124  
 256946-98-2P, Aerothricin 125 256946-99-3P, Aerothricin 126  
 256947-00-9P, Aerothricin 127 256947-01-0P, Aerothricin 128  
 256947-02-1P, Aerothricin 129 256947-03-2P, Aerothricin 130  
 256947-04-3P, Aerothricin 131 256947-27-0P, Aerothricin 108  
 351495-75-5P 352284-28-7P, Aerothricin 82 352284-29-8P, Aerothricin 83  
 352284-30-1P, Aerothricin 84 352284-31-2P, Aerothricin 85  
 352284-32-3P, Aerothricin 86 352284-33-4P, Aerothricin 87  
 352284-34-5P, Aerothricin 88 352284-35-6P, Aerothricin 132

352284-36-7P, Aerothricin 133 352284-38-9P, Aerothricin 135  
352284-39-0P, Aerothricin 136 352284-40-3P, Aerothricin 137  
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cyclic peptide compns. for nasal administration)

IT 121118-79-4P 256666-86-1P 256666-87-2P 256666-88-3P 256666-90-7P  
256666-91-8P 256666-93-0P 256666-94-1P 256945-76-3P 256945-79-6P  
256947-05-4P 256947-10-1P 256947-11-2P 256947-12-3P 256947-19-0P  
351428-12-1P 351428-13-2P 351428-14-3P 351428-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of cyclic peptide compns. for nasal administration)

IT 256947-29-2P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cyclic peptide compns. for nasal administration)

IT 62-33-9, Calcium disodium EDTA 62-54-4, Calcium acetate 133-15-3,  
Calcium p-aminosalicylate 137-08-6, Calcium D-pantothenate 142-17-6,  
Calcium oleate 299-28-5, Calcium gluconate 471-34-1, Calcium  
carbonate, biological studies 542-42-7, Calcium palmitate 546-93-0,  
Magnesium carbonate 557-04-0, Magnesium stearate 557-05-1, Zinc  
stearate 637-12-7, Aluminum stearate 814-80-2, Calcium lactate  
1305-62-0, Calcium hydroxide, biological studies 1305-78-8,  
Calcium oxide, biological studies 1306-06-5, Hydroxylapatite  
1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide,  
biological studies 1314-13-2, Zinc oxide, biological studies  
1327-41-9, Aluminum hydroxy chloride 1327-43-1, MAGnesium Aluminum  
silicate 1335-30-4, Aluminum silicate 1343-88-0, Magnesium silicate  
1344-28-1, Aluminum oxide, biological studies 1344-95-2, Calcium  
silicate 1398-61-4, Chitin 1404-90-6, Vancomycin 1592-23-0, Calcium  
stearate 3632-91-5, Magnesium gluconate 5793-88-4, Calcium saccharate  
7047-84-9, Aluminum monostearate 7429-90-5D, Aluminum, compds.,  
biological studies 7439-89-6D, Iron, compds., biological studies  
7439-95-4D, Magnesium, compds., biological studies 7440-21-3D, Silicon,  
compds., biological studies 7440-66-6D, Zinc, compds., biological  
studies 7440-70-2D, Calcium, compds., biological studies 7487-88-9,  
Magnesium sulfate, biological studies 7631-86-9, Silica, biological  
studies 7646-85-7, Zinc chloride, biological studies 7693-13-2,  
Calcium citrate 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate  
7757-93-9, Calcium hydrogen phosphate 7758-87-4, Tribasic Calcium  
phosphate 7778-18-9, Calcium sulfate 7786-30-3, Magnesium chloride,  
biological studies 9000-01-5, Gum arabic 9000-65-1, Gum tragacanth  
9002-18-0, Agar 9003-04-7, Sodium polyacrylate 9003-39-8, PVP  
9004-32-4, Carboxymethyl cellulose 9004-34-6, Cellulose, biological  
studies 9004-35-7, Cellulose acetate 9004-53-9, Dextrin 9004-57-3,  
Ethyl Cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, HPMC  
9004-67-5, Methyl Cellulose 9005-25-8, Starch, biological studies  
9005-35-0, Calcium alginate 9005-38-3, Sodium alginate 9012-76-4,  
Chitosan 9049-76-7, Hydroxypropyl starch 9057-02-7, Pullulan  
9063-38-1, Carboxymethyl starch sodium salt 10043-01-3, Aluminum sulfate  
10043-52-4, Calcium chloride (CaCl<sub>2</sub>), biological studies 10103-46-5,  
Calcium phosphate 13682-92-3, DihydroxyAluminum aminoacetate  
15007-61-1, Potassium Aluminum sulfate 18962-61-3, Magnesium L-aspartate  
24249-05-6, Hydrocalcite 25479-12-3 27214-00-2, Calcium  
glycerophosphate 39366-43-3, Aluminum magnesium hydroxide  
59865-13-3, Cyclosporin A 80619-41-6D, Echinocandin, analogs  
101659-01-2 103060-53-3, Daptomycin 103222-11-3, Vapreotide  
108736-35-2, Lanreotide 166663-25-8D, LY 303366, analogs 179463-17-3D,  
MK 0991, analogs 188627-80-7, Eptifibatide 208538-73-2D, FK 463,  
analog

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of cyclic peptide compns. for nasal administration)

L4 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:456735 CAPLUS

DOCUMENT NUMBER: 135:24048

TITLE: Preparation and application of polyose with  
funga cell wall structure

INVENTOR(S): Meng, Qin; Lu, Dewei

PATENT ASSIGNEE(S): Zhejiang University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.  
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1273249	A	20001115	CN 1999-104670	19990506
CN 1101406	B	20030212		

PRIORITY APPLN. INFO.: CN 1999-104670 19990506

AB The polyose is used as biol. adsorbent, heavy metal ion adsorbent, or biol. immobilization carrier. The polyose is prepared by crushing funga mycelium containing chitosan or chitin, washing to remove cytoplasm, washing with alc. to remove lipid on cell walls, removing protein and nucleic acid on cell walls with alkali solution or enzyme, carrying out crosslinking reaction by adding benzaldehyde, and removing benzaldehyde with organic solvent or water to obtain polyose with pos. surface potential in neutral or acid solution The content of free amine in the polyose is  $\geq 0.8\%$ . The funga mycelium is selected from Rhizopus, Absidia, and Mucor.

TI Preparation and application of polyose with funga cell wall structure

AB . . . polyose is used as biol. adsorbent, heavy metal ion adsorbent, or biol. immobilization carrier. The polyose is prepared by crushing funga mycelium containing chitosan or chitin, washing to remove cytoplasm, washing with alc. to remove lipid on cell walls, removing protein and nucleic acid. . . with pos. surface potential in neutral or acid solution The content of free amine in the polyose is  $\geq 0.8\%$ . The funga mycelium is selected from Rhizopus, Absidia, and Mucor.

ST polyose funga cell wall adsorbent prepn

IT Solvents

(organic; preparation and application of polyose with funga cell wall structure)

IT Absidia

Adsorbents

Amino group

Carriers

Cell wall

Crosslinking

Crosslinking agents

Fungi

Immobilization, biochemical

Mucor

Rhizopus

(preparation and application of polyose with funga cell wall structure)

IT Polysaccharides, biological studies

RL: BUU (Biological use, unclassified); PUR (Purification or recovery);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and application of polyose with funga cell wall  
structure)

IT Enzymes, uses  
RL: CAT (Catalyst use); USES (Uses)  
(preparation and application of polyose with funga cell wall  
structure)

IT Alcohols, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(preparation and application of polyose with funga cell wall  
structure)

IT Alkali metal hydroxides  
RL: NUU (Other use, unclassified); USES (Uses)  
(preparation and application of polyose with funga cell wall  
structure)

IT Heavy metals  
RL: REM (Removal or disposal); PROC (Process)  
(preparation and application of polyose with funga cell wall  
structure)

IT Lipids, processes  
RL: REM (Removal or disposal); PROC (Process)  
(preparation and application of polyose with funga cell wall  
structure)

IT Nucleic acids  
RL: REM (Removal or disposal); PROC (Process)  
(preparation and application of polyose with funga cell wall  
structure)

IT Proteins, general, processes  
RL: REM (Removal or disposal); PROC (Process)  
(preparation and application of polyose with funga cell wall  
structure)

IT 7647-01-0, Hydrochloric acid, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(diluted; preparation and application of polyose with funga cell  
wall structure)

IT 1398-61-4P, Chitin 9012-76-4P, Chitosan  
RL: BUU (Biological use, unclassified); PUR (Purification or recovery);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and application of polyose with funga cell wall  
structure)

IT 100-52-7, Benzaldehyde, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and application of polyose with funga cell wall  
structure)

L4 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:174550 CAPLUS

DOCUMENT NUMBER: 134:309780

TITLE: Induction of Rhizopus oryzae pellet growth by  
surfactants and production of porous chitinous beads  
from the pellet mycelia

AUTHOR(S): Yoshiharu, Kazutoshi; Kubo, Takamasa; Hirotsu,  
Takahiro; Hosokawa, Jun; Yokochi, Toshihiro; Nakahara,  
Toro; Higashihara, Takanori

CORPORATE SOURCE: Shikoku National Industrial Research Institute,  
Hayashi-cho, Takamatsu, Kagawa, 761-0395, Japan

SOURCE: Seibutsu Kogaku Kaishi (2000), 78(12), 487-493  
CODEN: SEKAEA; ISSN: 0919-3758

PUBLISHER: Nippon Seibutsu Kogakkai

DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

AB A novel porous chitinous bead was produced from compact pellet-form mycelia cultivated in submerged culture of *Rhizopus oryzae* YPF-61A. The compact pellet-form growth was effectively induced by the addition of surfactants such as Triton X-100, sodium cholate, or sodium taurocholate to the medium. A bead-form alkali insol. material (AIM), which was prepared by heat treatment (120°, 1h) of the compact pellet-form mycelia with alkali solution (2% NaOH), predominantly consisted of chitin and chitosan derived from the fungal cell wall. The productivity of chitinous beads per medium volume was maximal (1540 mg/l) when the pellet-form growth was induced by 0.1% sodium taurocholate. The high productivity could be attributable to the activation of both growth and chitinous material biosynthesis by the surfactant. The surface of the chitinous bead was porous due to the tight interwound structure of the fibrous cell wall free from cytoplasmic components. The area in the neighborhood of the center was observed to be hollow.

AB . . . by heat treatment (120°, 1h) of the compact pellet-form mycelia with alkali solution (2% NaOH), predominantly consisted of chitin and chitosan derived from the fungal cell wall. The productivity of chitinous beads per medium volume was maximal (1540 mg/l) when the pellet-form growth was induced. . .

ST *Rhizopus* pellet growth porous chitinous bead manuf; surfactant *Rhizopus* pellet growth porous chitosan

IT Alkali metal hydroxides  
RL: NUU (Other use, unclassified); USES (Uses)  
(induction of *Rhizopus oryzae* pellet growth by surfactants and production of porous chitinous beads from pellet mycelia)

IT Mold (fungus)  
(pellet form; induction of *Rhizopus oryzae* pellet growth by surfactants and production of porous chitinous beads from pellet mycelia)

IT 1398-61-4P, Chitin 9012-76-4P, Chitosan  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(induction of *Rhizopus oryzae* pellet growth by surfactants and production of porous chitinous beads from pellet mycelia)

IT 1310-73-2, Sodium hydroxide, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(induction of *Rhizopus oryzae* pellet growth by surfactants and production of porous chitinous beads from pellet mycelia)

L4 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:559775 CAPLUS  
DOCUMENT NUMBER: 133:121913  
TITLE: Method for preparing chitosan and low polymerized chitosan  
INVENTOR(S): Tan, Tianwei; Qi, Yizheng; Luo, Hui; Wang, Bingwu; Deng, Li; Xu, Weijian; Zhang, Shurong  
PATENT ASSIGNEE(S): Beijing Chemical Engineering Univ., Peop. Rep. China  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1242377	A	20000126	CN 1998-102884	19980720
CN 1085215	B	20020522		

PRIORITY APPLN. INFO.:

CN 1998-102884

19980720

AB The process for preparing chitosan comprises treating filamentous mycelium with 1-10% base solution at 20-100°, deacetylating with 10-70% base solution at 50-200° for 1-5 h, extracting with 1-30% acid, and precipitating with C1-6 alc. or C3-6 ketone or by regulating pH to

≥6.0. The mycelium is penicillium, *Aspergillus niger*, or *Rhizopus*. The process for preparing low polymerized chitosan comprises treating filamentous mycelium with 1-10% base solution at 20-100° for 10 min-4 h, hydrolyzing with 15-98% acid at 50-100° for 1-10 h, filtering to remove residue, regulating filtrate to pH ≥1.0, and drying.

TI Method for preparing chitosan and low polymerized chitosan

AB The process for preparing chitosan comprises treating filamentous mycelium with 1-10% base solution at 20-100°, deacetylating with 10-70% base solution at 50-200° for 1-5 h, extracting with 1-30% acid, and precipitating with C1-6 alc. or C3-6 ketone or by regulating pH to

≥6.0. The mycelium is penicillium, *Aspergillus niger*, or *Rhizopus*. The process for preparing low polymerized chitosan comprises treating filamentous mycelium with 1-10% base solution at 20-100° for 10 min-4 h, hydrolyzing with 15-98% acid at 50-100° for 1-10 h, filtering to remove residue, . . .

ST chitosan prepn filamentous mycelium

IT *Aspergillus niger*

Deacetylation

Hydrolysis

Mold (fungus)

Penicillium

*Rhizopus*

(in preparing of chitosan)

IT 9012-76-4P, Chitosan

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparing of chitosan)

L4 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:436216 CAPLUS

DOCUMENT NUMBER: 132:20685

TITLE: Rapid extraction of high-quality chitosan from mycelia of *Absidia glauca*

AUTHOR(S): Hu, Ke-Jin; Yeung, Kwok-Wing; Ho, Kwok-Ping; Hu, Jin-Lian

CORPORATE SOURCE: Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hong Kong, Peop. Rep. China

SOURCE: Journal of Food Biochemistry (1999), 23(2), 187-196

CODEN: JFBIDW; ISSN: 0145-8884

PUBLISHER: Food & Nutrition Press, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A rapid two-step extraction method for high quality funga chitosan from *Absidia glauca* was developed. Funga mycelia are autoclaved in a 1M caustic soda solution at 121C for 15 min. The alkali-insol.-materials obtained are then further autoclaved for 15 min in a 2% aqueous acetic acid solution There was a relatively low degree of

N-deacetylation and chain degradation of the chitosan. The integrity of the product can be attributed to the mild acid used, the short reaction time and the steam environment. When the acid extraction step was carried out in a 1M hydrochloric acid solution under the same conditions,

the highest degree of extraction was attained, albeit with some degree of chain degradation. When compared to existing extraction methods, our procedure is efficient, time- and labor-saving, and can handle both small and large samples. In addition, chitosan obtained by this method is essentially free of impurities.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Rapid extraction of high-quality chitosan from mycelia of Absidia glauca  
 AB A rapid two-step extraction method for high quality funga chitosan from Absidia glauca was developed. Funga mycelia are autoclaved in a 1M caustic soda solution at 121C for 15 min. The alkali-insol.-materials obtained are then further autoclaved for 15 min in a 2% aqueous acetic acid solution. There was a relatively low degree of

N-deacetylation and chain degradation of the chitosan. The integrity of the product can be attributed to the mild acid used, the short reaction time and the steam. . . existing extraction methods, our procedure is efficient, time- and labor-saving, and can handle both small and large samples. In addition, chitosan obtained by this method is essentially free of impurities.

ST Absidia mycelia chitosan extn

IT Absidia glauca

Deacetylation

Extraction

(rapid extraction of high-quality chitosan from mycelia of Absidia glauca)

IT 64-19-7, Acetic acid, uses 1310-73-2, Sodium hydroxide

(Na(OH)), uses 7647-01-0, Hydrochloric acid, uses

RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(rapid extraction of high-quality chitosan from mycelia of Absidia glauca)

IT 9012-76-4P, Chitosan

RL: PUR (Purification or recovery); PREP (Preparation)

(rapid extraction of high-quality chitosan from mycelia of Absidia glauca)

L4 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:768104 CAPLUS

DOCUMENT NUMBER: 129:342752

TITLE: High-molecular weight chitosan of Absidia fungi and its manufacture

INVENTOR(S): Ohno, Tsuneji; Tomomatsu, Akio; Suzuki, Junichi

PATENT ASSIGNEE(S): Rengo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 10316702	A	19981202	JP 1997-132271	19970522
PRIORITY APPLN. INFO.:			JP 1997-132271	19970522

AB Chitosan is manufactured by cultivation of Absidia sp. in media with controlling the min. dissolved O 1-6 ppm during the logarithmic growth phase and treatment of the cultured cell with alkali under heating. The chitosan is useful as a dietary fiber (no data). A. coerulea IFO

4435 was aerobically shake-cultured in a medium containing glucose, CSL, and salts at min. dissolved O 1.59 ppm for 50 h, the cell collected, and treated with aqueous NaOH at 115° to manufacture 8.9 g chitosan/L (68 cP at 20° at 0.5 weight/volume in 0.5 weight/volume aqueous AcOH solution).

TI High-molecular weight chitosan of Absidia fungi and its manufacture

AB Chitosan is manufactured by cultivation of Absidia sp. in media with controlling the min. dissolved O 1-6 ppm during the logarithmic growth phase and treatment of the cultured cell with alkali under heating. The chitosan is useful as a dietary fiber (no data). A. coerulea IFO 4435 was aerobically shake-cultured in a medium containing glucose, . . . O 1.59 ppm for 50 h, the cell collected, and treated with aqueous NaOH at 115° to manufacture 8.9 g chitosan/L (68 cP at 20° at 0.5 weight/volume in 0.5 weight/volume aqueous AcOH solution).

ST dietary fiber chitosan manuf Absidia; oxygen dissolved control chitosan manuf Absidia

IT Absidia  
Absidia coerulea  
Dietary fiber  
Fermentation  
(manufacture of high-mol. weight chitosan with Absidia sp. for dietary fiber)

IT 7782-44-7, Oxygen, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (dissolved, of culture media; manufacture of high-mol. weight chitosan with Absidia sp. for dietary fiber)

IT 1310-73-2, Sodium hydroxide, uses  
RL: NUU (Other use, unclassified); USES (Uses) (in purification of chitosan; manufacture of high-mol. weight chitosan with Absidia sp. for dietary fiber)

IT 9012-76-4P, Chitosan  
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses) (manufacture of high-mol. weight chitosan with Absidia sp. for dietary fiber)

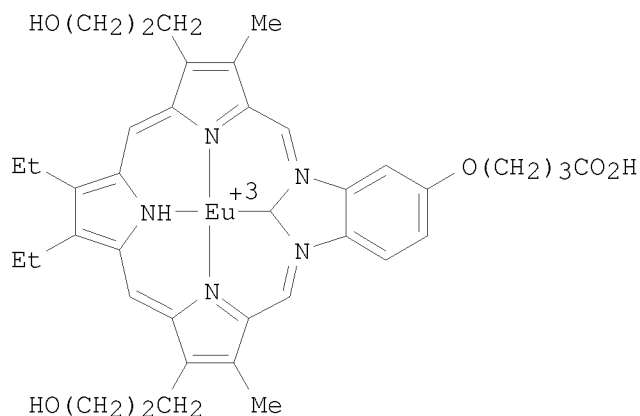
L4 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:56236 CAPLUS  
DOCUMENT NUMBER: 124:81470  
TITLE: Texaphyrin immobilization on solid supports and medical devices  
INVENTOR(S): Sessler, Jonathan L.; Iverson, Brent L.; Kral, Vladimir; Thomas, Richard E.; Smith, Daniel A.; Magda, Darren  
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA; Pharmacyclics, Inc.  
SOURCE: PCT Int. Appl., 128 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9529702	A1	19951109	WO 1995-US5421	19950428
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 758250	A1	19970219	EP 1995-920377	19950428



R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE  
 JP 09512557 T 19971216 JP 1995-528480 19950428  
 PRIORITY APPLN. INFO.: US 1994-236218 A 19940428  
 WO 1995-US5421 W 19950428  
 OTHER SOURCE(S): MARPAT 124:81470  
 GI



- AB Novel matrix-supported texaphyrins are provided in which a polymeric or solid matrix is covalently modified by the addition of  $\geq 1$  texaphyrin or texaphyrin derivative. Polymer-supported texaphyrins may be used as chromatog. supports, e.g., in the separation of neutral and anionic species, and in applications involving phosphate ester hydrolysis, other catalytic schemes, MRI, and photodynamic therapy. Thus, Eu-texaphyrincarboxylic acid I was treated with carbodiimide and 1-hydroxybenzotriazole and then coupled to 3-aminopropyl silica gel. A silica bead-supported lanthanide-texaphyrin complex was used to remove RNA contaminants from plasmid DNA by utilizing the susceptibility of RNA to hydrolysis by the lanthanide complex catalyst.
- IT Nucleic acid bases  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates with texaphyrins; texaphyrin immobilization on solid supports and medical devices)
- IT Rare earth metals, analysis  
 RL: ARU (Analytical role, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (texaphyrin complexes; texaphyrin immobilization on solid supports and medical devices)
- IT Chemical warfare agents  
Fungicides and Fungistats  
 Herbicides  
 Hydrogenation catalysts  
 Hydrolysis catalysts  
 Medical goods  
 Pesticides  
 Photolysis catalysts  
 Polymer-supported reagents  
 Polymerization catalysts

Virucides and Virustats  
 (texaphyrin immobilization on solid supports and medical devices)

IT Polymers, analysis  
 RL: ANT (Analyte); DEV (Device component use); PUR (Purification or recovery); RCT (Reactant); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (texaphyrin immobilization on solid supports and medical devices)

IT Arsenates  
 Bromides, analysis  
 Carbohydrates and Sugars, analysis  
 Chlorides, analysis  
 Fluorides, analysis  
 Nitrates, analysis  
 Nucleotides, analysis  
 Phosphates, analysis  
 Pseudohalides  
 Sulfates, analysis  
 Sulfonates  
 RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)  
 (texaphyrin immobilization on solid supports and medical devices)

IT Deoxyribonucleic acids  
 Ribonucleic acids  
 RL: ANT (Analyte); PUR (Purification or recovery); RCT (Reactant); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)  
 (texaphyrin immobilization on solid supports and medical devices)

IT Carbohydrates and Sugars, analysis  
 RL: ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (conjugates, with texaphyrin; texaphyrin immobilization on solid supports and medical devices)

IT Carboxylic acids, analysis  
 Sulfonic acids, analysis  
 RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)  
 (esters, texaphyrin immobilization on solid supports and medical devices)

IT Carboxylic acids, analysis  
 RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)  
 (salts, texaphyrin immobilization on solid supports and medical devices)

IT Transition metal compounds  
 RL: ARU (Analytical role, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (texaphyrin complexes, texaphyrin immobilization on solid supports and medical devices)

IT 7782-44-7P, Oxygen, preparation  
 RL: PNU (Preparation, unclassified); PREP (Preparation)  
 (singlet; texaphyrin immobilization on solid supports and medical devices)

IT 7664-93-9DP, Sulfuric acid, esters    7697-37-2DP, Nitric acid, esters  
 7723-14-0DP, Phosphorus, organic compds.    7778-39-4DP, Arsenic acid, esters  
 13598-36-2DP, Phosphonic acid, esters  
 RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)

- (texaphyrin immobilization on solid supports and medical devices)
- IT 7664-38-2DP, Phosphoric acid, esters  
 RL: ANT (Analyte); PUR (Purification or recovery); RCT (Reactant); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 7439-89-6DP, Iron, texaphyrin complexes 7440-02-0DP, Nickel, texaphyrin complexes 7440-48-4DP, Cobalt, texaphyrin complexes 7440-50-8DP, Copper, texaphyrin complexes 7440-54-2DP, Gadolinium, texaphyrin complexes 115652-49-8DP, derivs.  
 RL: ARU (Analytical role, unclassified); CAT (Catalyst use); DEV (Device component use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 7429-91-6DP, Dysprosium, texaphyrin complexes 7439-91-0DP, Lanthanum, texaphyrin complexes 7439-94-3DP, Lutetium, texaphyrin complexes 7439-96-5DP, Manganese, texaphyrin complexes 7439-97-6DP, Mercury, texaphyrin complexes 7440-00-8DP, Neodymium, texaphyrin complexes 7440-10-0DP, Praseodymium, texaphyrin complexes 7440-19-9DP, Samarium, texaphyrin complexes 7440-20-2DP, Scandium, texaphyrin complexes 7440-27-9DP, Terbium, texaphyrin complexes 7440-30-4DP, Thulium, texaphyrin complexes 7440-43-9DP, Cadmium, texaphyrin complexes 7440-45-1DP, Cerium, texaphyrin complexes 7440-52-0DP, Erbium, texaphyrin complexes 7440-53-1DP, Europium, texaphyrin complexes 7440-60-0DP, Holmium, texaphyrin complexes 7440-64-4DP, Ytterbium, texaphyrin complexes 7440-65-5DP, Yttrium, texaphyrin complexes 7440-66-6DP, Zinc, texaphyrin complexes 7440-70-2DP, Calcium, texaphyrin complexes 7440-74-6DP, Indium, texaphyrin complexes  
 RL: ARU (Analytical role, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 74-85-1D, Ethene, halo, polymers 79-10-7D, 2-Propenoic acid, esters, polymers 1318-93-0, Montmorillonite (AlH(SiO<sub>3</sub>)<sub>2</sub>) 1344-28-1, Alumina, uses 1398-61-4, Chitin 7631-86-9, Silica, uses 9002-86-2, Poly(vinyl chloride) 9002-88-4 9003-05-8, Polyacrylamide 9003-07-0, Polypropylene 9003-53-6 9003-69-4, Poly(divinylbenzene) 9004-34-6, Cellulose, uses 9005-32-7, Alginic acid 9012-36-6, Sepharose 9012-76-4, Chitosan 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 172757-84-5  
 RL: NUU (Other use, unclassified); USES (Uses)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 56-65-5P, 5'-ATP, preparation 58-61-7P, Adenosine, preparation 58-64-0P, 5'-ADP, preparation 60-92-4P, 3',5'-Cyclic AMP 61-19-8P, 5'-AMP, preparation 65-85-0P, Benzoic acid, preparation 98-11-3P, Benzenesulfonic acid, preparation 701-64-4P, Phenyl phosphate 838-85-7P, Diphenyl phosphate  
 RL: PUR (Purification or recovery); PREP (Preparation)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 164388-50-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (texaphyrin immobilization on solid supports and medical devices)
- IT 172757-80-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)
- (texaphyrin immobilization on solid supports and medical devices)

TITLE: Preparation of deodorant microbicidal polymers  
 INVENTOR(S): Nakao, Katsuaki; Ishido, Kazutaka; Sato, Koji  
 PATENT ASSIGNEE(S): Ipposha Oil Industries Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02067210	A	19900307	JP 1988-219478	19880831
PRIORITY APPLN. INFO.:			JP 1988-219478	19880831

AB The title polymer is made by reacting a cationized polymer with an anionic or amphoteric deodorant microbicide. The polymer can be fiber, plastic, or natural polymer from wood, such as cotton and paper, as well as poly(vinyl alc.), etc. Cationizing agents can be quaternary ammonium compds., such as  $[Q_1NR_1R_2ANR_3R_4Q_2](2+n)^+.(2+n)^-X^-$  or  $(CH_2)_p[Q_3NR_5(CH_2)_q]_n$  [A = OH-substituted C1-8 alkylene; p, q = 1-8; n = 0-2; R1-5 = C1-4 alkyl, OH- or cyano-substituted C1-4 alkyl, C1-4 alkenyl; Q1, Q2, Q3 = CH2CH(OH)CH2Y or epoxypropylene; X, Y = halo]. PVC film (50  $\mu$ m thick) was immersed in a dimethylaminoethyl acrylate-Bu methacrylate-N-methylolacrylamide copolymer (mol ratio 4:1:0.2 and average mol. weight 50,000) for 20 min. and then dried. The film was dipped in a 5% Myosalvarsan aqueous solution for 1 h and dried for tests on Staphylococcus aureus to show 90% kill.

IT Polyester fibers, biological studies  
 Rayon, biological studies  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (cationized with quaternary ammonium compds., for preparation of deodorant microbicidal polymers)

IT Quaternary ammonium compounds, biological studies  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (cationizing agents, for preparation of deodorant microbicidal polymers)

IT Bactericides, Disinfectants, and Antiseptics  
Fungicides and Fungistats  
 (deodorant, anionic or amphoteric cationized polymers)

IT Zeolites, biological studies  
 RL: BIOL (Biological study)  
 (powder, deodorant microbicidal chitosan fiber containing)

IT Acrylic fibers, uses and miscellaneous  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (quaternary ammonium group-containing, for preparation of deodorant microbicidal polymers)

IT 50-81-7, L-Ascorbic acid, biological studies 618-82-6, Myosalvarsan  
 1345-25-1, Ferrous oxide, biological studies 1806-29-7,  
 [1,1'-Biphenyl]-2,2'-diol 20427-59-2, Copper hydroxide  
 RL: BIOL (Biological study)  
 (deodorant microbicidal polymers containing)

IT 9012-76-4, Chitosan  
 RL: BIOL (Biological study)  
 (fibers, cationized with quaternary ammonium compound, for preparation of deodorant microbicidal polymers)

IT 1335-30-4  
 RL: BIOL (Biological study)  
 (zeolites, powder, deodorant microbicidal chitosan fiber containing)

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FILE 'CAPLUS' ENTERED AT 08:38:37 ON 06 MAR 2008

L1 1726 CHITOSAN AND FUNG?  
L2 285 L1 AND PREP/RL  
L3 3 L2 AND (PRESSURE OR AUTOCLAVE OR PSI)  
L4 32 L2 AND (CAUSTIC OR BASE OR HYDROXIDE)

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